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Merging Merchandising with Production

MORE than a year has passed since Floyd W. Jefferson, speaking before the National Association of Cotton Manufacturers, stated that "the trouble (with the cotton textile industry) lies at the manufacturing and primary distributing end of the business, and is unquestionably attributable to the lack of complete coordination between the two," and prescribed, as a remedy, the merging of the best mills and best brains in Worth Street, New England and the South, in order to "stabilize and put into its proper place in the sun one of the world's largest and most necessary industries."

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The passage of a year, however, has not detracted from the current truthfulness of the statement, nor from the possibility of its application to *all* branches of textile manufacture.

In fact, the existing anomaly of good business and unprofitable prices reflects the "lack of complete coordination" between production and distribution emphasized by Mr. Jefferson.

Observers agree on this fundamental point. They disagree on the feasibility of effecting textile mergers, and on the method of approach.

It is claimed by some that combination of manufacturing units is impossible under present financial conditions. Walker D. Hines, in his valedictory address last month, answered this by stating that complicated financing is unnecessary and that the soundest mergers are those involving merely exchange of securities among the merging firms. Any time, he added, is appropriate for such combinations.

Still other observers have contended that mergers must originate at the selling end. As we understand it, this claim is based, not on the belief that the brains of the industry are concentrated among sales agents, but on the realization that merging of selling organizations is less difficult than that of mill properties, and also that under present conditions merchandising considerations should dominate.

There have been trends in this direction. Only last week there was announced the merging of Morton H. Meinhard & Co. with Greeff & Co., under the auspices of the Commercial Investment Trust Corp. The latter organization, through its subsidiary, Commercial Factors Corp., and the new unit of Meinhard, Greeff & Co., now factors for about 275 mills.

While it is true that this does not represent a merging of corporate interests of the mills concerned, it does mean that those mills participate more or less directly in the activities of one corporation which, presumably, are pointed toward one definite objective or group of objectives.

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It is the latter thought which impresses us in connection with this or any other trend toward centralization in textiles.

By some means or other, the industry must rid itself of conditions which lead Mr. Jefferson to characterize it as a "disorganized, heterogeneous lot of producers and sellers who are completely at the mercy of the well-conceived, well-organized groups who buy the product and pass it along in orderly fashion to the ultimate consumer who is glad to get it and who is willing to pay a fair price for it."

If the steps taken in recent years toward cooperative correction of fundamental weaknesses are followed by *sound* mergers, no matter where they originate or what form they take, the textile problem will have appreciably neared solution.

The Week in Textiles

as Reflected in This Issue

General

Planned Operations

Market research and budget control as a path for the betterment of conditions among textile mills, are discussed by Earle L. Milliken. He points out the essentials through which management may hope to cope with present day competitive conditions. *(page 40)*

Performance Specifications

Problems of textile specifications were analyzed by Dr. W. D. Appel, chief, Textile Division, Bureau of Standards at the dinner meeting of the New York Section of the A.A.T.C.C. last week. He stressed the superiority of performance specifications from standpoint of usefulness to consumer. *(page 48)*

Industry Loses Leader

James Robertson MacColl, whose history parallels many important movements in the textile industry in which he played a leading part, died last Monday. *(page 51)*

Attacks Socialistic Trends

W. D. Anderson, president, Bibb Mfg. Co., assailed the current trend toward socialistic experiments in an address before an association meeting in Atlanta. He included the Farm Board in his list of costly ventures. *(page 57)*

Filling-End Holder

A simple, yet effective device for holding the filling ends on bobbin-changing looms has been recently developed. *(page 62)*

Carboy Tilter

For the purpose of reducing acid injuries to a minimum, a new carboy-handling device has been developed. It is said to have the approval of several safety organizations. *(page 63)*

Recovery by Spring Foreseen

As yet the declining barometers outnumber the indications of improvement, says Dr. L. H. Haney in this week's Textile World Analyst, but reasonable hopes of recovery next spring have some basis. He adds that the textile manufacturing industries are likely to be reactionary during the next month or two. *(page 67)*

Cotton

Spinners Discuss Yarn Problems

The most recent meeting of the spinner's section of the Southern Textile Association brought forth an interesting discussion on the subjects of long draft spinning, high-speed spooling and warping, and the relationship between yarn counts and spinning frame gage. Arguments of the various members were substantiated by reports drawn up under operating conditions. *(page 43)*

Effect of Moisture on Strength

Exhaustive research in regard to the effect of moisture on the strength of cotton fibers has shed new light on an old subject. The effect of warp sizing on the strength of the yarn is discussed in all its phases. *(page 46)*

Oil Spots on Denim

Care in the lubrication of bearings is essential to the elimination of any possibility of oil spots of this nature appearing on the goods. Spots arising from this source often contain metallic particles and are especially hard to remove. *(page 65)*

Cotton Technically Improved

Following a gradual decline for two weeks, the cotton market developed a better technical position and was firmer before the holiday. *(page 71)*

Yarns Quiet at Bottom

Cotton yarns have not been able to maintain their efforts to retain firmness. Buyers have been playing the market for cut prices and such scant business as is being accomplished is moving at figures below quoted prices. *(page 71)*

Goods Not Out of the Woods

The goods market has exchanged demoralization in one quarter for demoralization in another this week. While print cloths are steadier at bottom figures, wash goods are being slashed to move surplus. *(page 75)*

Wool

Blanket Labeling

The assemblage of blanket manufacturers in New York last week approved the standardization of labeling of part-wool blankets as proposed under the guidance of the Bureau of Standards. The move is regarded as a step toward better selling and more clean-cut competition. *(page 56)*

Overseers Meet

Woolen and worsted overseers met last Saturday at the American House, Boston, Mass. Thomas Parkin was elected president and J. J. Burns secretary. The latter succeeds J. H. Pickford who asked to be relieved after many years' service. *(page 56)*

Duplicating Sample of Frill Yarn

In constructing a frill yarn for the purpose of duplicating a given sample,

The Textile Outlook

SEARCH might well be made at this time for the missing ingredient which checked the textile industry's prosperity pudding from rising. Different observers might name different ingredients but most of them would probably name *confidence* as the principal missing element. When confidence returns a decent market for textiles will come with it. The useful thing to know about the situation is that there is much the industry can do itself to bring a return of confidence. First of all it can hold firm prices and prices which include a living profit. Second: it can frown on substandard, cheapened goods—fibers are low enough in price to warrant weaving satisfactory service into every product turned out. Third: it can continue its path toward intelligent production and merchandising. Fourth: it can pay more attention to the consumer and make what he or she wants. Many mills are doing these things but many more must practice them if confidence is to return as leaven to the lump.

it is necessary to exercise extreme care in having the twists of both the single yarns and plies correspond. *(page 65)*

Wool Is Firmer

Wool appears much firmer after a recession which seemed to terminate last week. Dealers are more optimistic than for some time and report that mills are taking on wool without waiting for orders for goods or yarn. *(page 73)*

Yarns Are Neglected

Worsted yarn market remains in the doldrums. Reports are to the effect that insufficient business is passing to make a quotable price level. *(page 71)*

Weather a Fabric Liability

Abnormally warm weather is becoming a concern of the wool goods industry, as it is holding back movement of all spring fabric lines. *(page 75)*

Knitting

Erecting Full-Fashioned Machines

Many fixers are prone to correct trouble due to misalignment by adjusting mechanisms which should not be altered. A more thorough knowledge of erection methods will enable them to apply the correct remedies. *(page 52)*

No-Run Powders for Hosiery

The constituents of no-run powders for hosiery are revealed. It is pointed out that these products either contain adhesive substances which stick the threads together, or are of such a nature that they soften the silk so that it forms a homogeneous mass. *(page 64)*

Unraveling Device

Announcement is made of the development of an ingenious device for unraveling the yarns from a circular-knitted fabric for testing purposes. The condition of the yarn may be continuously observed. *(page 62)*

Rush Call for Lace Stockings

Jobbers and retailers are pushing mills for quick shipment of mesh and lace hosiery for Christmas. *(page 77)*

The Blanket Labeling Decision

THE wisdom shown by blanket manufacturers in approving definite specifications for the labeling of their products, cannot be successfully disputed. Irrespective of the inconvenience and expense which mills may incur in adjusting themselves to this decision, they have acted to eliminate a problem which has been the source of utmost confusion and disagreement in the past.

Hitherto, a great deal of the argument has hinged on the question: What is the minimum percentage of wool content which should permit the labeling of a blanket as "part wool"? Obviously, the question as such is almost impossible to answer.

The simple and satisfactory solution, of course, is the one developed last week, whereby the words "not less than 10%," "not less than 20%," etc., are to appear in the advertising in the same size type as the words "part wool." That is, a blanket containing between 10 and 20% of wool shall be labeled "part wool, not less than 10%"; a blanket containing between 20 and 30% of wool, shall be labeled "part wool, not less than 20%"; and so forth. In addition, no blanket containing less than 10% wool shall carry the word "wool" in any form, and blankets containing more than 98% shall be described as "all wool."

It will also help to have it clearly understood that the percentages in the specifications refer to the entire fiber content, and not merely to the filling, for example; and that, further, the percentages apply to the fiber content only, and not to the sum of fiber content, moisture, natural grease, etc.

The results of the conference reflect credit to the manufacturers and to L. R. Gilbert, of the Bureau of Standards. It is to be hoped that the industry as a whole will quickly put those results into actual practice.

—Editor.

Spring Underwear Improves

With all lines now open, movement of spring underwear has picked up somewhat; there is good call for cottons and nainsooks. *(page 77)*

Swimsuit Sales Increase

Swimsuit sales which were backward for some weeks, have improved and tone is firmer. *(page 77)*

Silk

Setting Twist in Yarn

Pressure of the steam, temperature, and time are the elements which govern the setting of the twist in a silk thread. *(page 64)*

Raw Silk Steadier

Raw silk shows trend to steadiness; price variation this week was restricted to 13/15s. Buying continues light but tone is confident. *(page 73)*

Spring Fabrics Moving

Spring broadsilks enjoy better call, and there is a strong leaning to rough fabrics for both day and evening. Plains gain importance. *(page 75)*

Rayon

Twist Influences Breaking Strength

Investigation of rayon yarns in regard to breaking strength, elongation, and other physical properties discloses some interesting facts. Well-known American brands are those given consideration. *(page 50)*

Crow's Feet in Crepe Fabric

When a rayon flat crepe is woven with a low fabric count, it is especially difficult to prevent an open or cracked appearance. *(page 64)*

The Business Outlook

SOME slackening of the rate of bank credit contraction, slowing up of currency expansion and bank suspensions, strengthening of the dollar and mark exchanges, accelerated action on German reparations and debt problems by the creditor powers may be counted as condiments for the rather thin Thanksgiving turkey offered in this week's news. All these things offer some promise that the period of acute financial disturbance which has complicated the depression will not be unduly prolonged and may be definitely past by spring. The postponement of railroad wage adjustments, pressure of tax selling and poor corporation earnings reports have provided an unpalatable giblet sauce for the security markets, but they are standing their disappointments so far fairly well, and commodity markets continue steady despite the dampening of their earlier inflationary enthusiasm. Meanwhile most measures of industrial and trade activity indicate nothing more than stabilization.—*The Business Week.*

Processing

Bleaching Worsted Yarn

Before satisfactory bleaching of worsted knitting yarns by the potassium permanganate process can be had, it is essential that the yarn be freed of all traces of oil or grease. *(page 61)*

Finishing Lace

In order to secure a high luster on lace fabrics, the yarn must not be of too tight a twist. It must be just soft enough to lend itself to a proper "circing" or pressing. *(page 65)*

From Market Research to Budget Control —*A Path Textile Mills Must Follow*

By Earle L. Milliken

UNDER today's keenly competitive conditions any business succeeds in proportion to the ability of its management to analyze:

(A) Past results from adequate and accurately kept records;
(B) Present conditions from similar data, and to build projections for future guidance based on such analyses.

The more the tendency of profits to shrink the greater the need for following these practices. The textile industry is not and cannot be any exception to the rule.

The analysis of past and present sales outlets with the subsequent estimation of future markets is the function of the market research and sales analysis. The analysis of past and present costs and the improvement for the future gained thereby is one of the functions of plant research.

The construction of projections based on the foregoing is the foundation of budget control.

Analysis and research are absolutely essential to proper and successful budget control. Underlying all of these is the necessity for adequate and accurate records. Personalities come and go within an organization. Proper records survive all such changes and are invaluable aids to continuity of policies. They have a double value: They assist those who prepare them and those who come after.

Market research and sales analysis can do for the textile industry what they have done for other lines of business. Attempts to utilize these two modern weapons of business are sometimes met with the arguments where textiles are concerned that they cannot be made effective for the following reasons:

(A) Style changes;
(B) The distribution all down the line to the ultimate consumer is too complicated;
(C) Too many lines and styles made by the same manufacturer;
(D) Where gray goods are produced the manufacturer has practically no control of the market.

Yet some outstanding examples of successful textile miles have become such because the companies concerned have studied their markets in a systematic and comprehensive way. They have developed new products sold on a profitable basis, uncovered new uses for old products, discontinued old and unprofitable lines, determined the lines best adapted to their equipment and to different seasons, and generally gotten control of their distribution instead of being controlled by it. The seasonal peaks of production have been flattened and production costs lowered.

An Argument for—not against

The more susceptible the market to changes due to style, and the farther removed the manufacturer is from the ultimate consumer, the more he needs to analyze both present and potential markets. He has all the more factors working against the successful disposal of his products. He may have at times excellent volume, but without continual market research when demand slackens he has no basis for the application of intelligent well-directed sales stimulation for the dull period. He is at the mercy of his unanalyzed market and is forced to take business at profitless if not ruinous prices or draw upon his reserves to meet the overhead of a non-producing period.

The market for any product or for the products of any plant is always susceptible of breaking down into its elements. Failure to realize this often has deterred many textile companies from undertaking market studies. Those responsible for sales have viewed the market as a whole only, and have immediately been discouraged from any analysis of same because of the admittedly hopeless task of trying to survey it as such. If each part is studied by itself and the results summated there naturally develops a complete picture of thoroughly analyzed possible distribution outlets.

The procedure consists simply of obtaining and putting down in suitable form information on each and every element and product one at a time. The record is then kept that he who runs may read. Policies can be fact-found rather than "hunch" founded. The old method of handling sales brings out of the pot-pourri, policies too frequently the results of snap judgments. If "hunches" proved correct the sales organization preened itself. If not, there were many alibis open, such as "poor market this season," "depressed business conditions" or "undercutting of prices by competitors" and so on. Seldom could these alibis be successfully refuted because, sales policies not being based on facts, there were no facts available on which to base criticism.

Proponents of market studies too frequently give the impression that industry has existed for many years without any of this work being done. Quite to the contrary it must be apparent that many eminently successful companies have become so by virtue of the fact that those responsible for sales have known intuitively from their long experience what, when and where to sell.

Doubtless the history of the decline of some formerly successful companies would show on careful analysis that had the same officials known when not to sell some products the same level of successful operation would have been maintained.

A vast store of information about markets is available within almost any organization. Too often it is carried solely in the heads of a few members of the organization and for this unwritten knowledge the companies have paid high prices to secure the men who had it. If this knowledge were collected, analyzed, correlated, amplified and recorded so that those responsible for sales could have it available for reference selling would then become systematized and subject to more careful control. It is just this object which sales research and market analysis aim to attain.

Retail business is profiting by studying the wants and demands of the consumer and so, by creating new wants and demands helping to increase volume. This fact is becoming generally recognized but is not always an incentive to action. The demands on the manufacturers are but the sum totals of the demands of the consumers. If the retailer would pass along the results of his studies to the wholesaler, the converter, the commission house or whatever selling function is next above in the distribution system; if this next element or elements would pass along eventually to the manufacturer the results of their respective studies of the demands of their individual customers, every element in the chain would profit from such coordination of effort. The manufacturer by intelligent use of this information could stabilize his production, reduce losses from ill-advised production, and inventories would be kept at a lower level. The factors in distribution would have less risk and fewer sacrificings of goods for which the market "went home." The consumer would be better served and ultimately all costs of distribution and production would be lowered.

On and Off the Band Wagon

There is bound to be a poor market for a product which has not the proper projected distribution laid out for it. The head-over-heels plunge of numerous units of an industry into the production of "the season's best seller" is bound to result in an orgy of price cutting. Goods made must be sold eventually at some price and the more made the lower that price. There is no rhyme or reason in setting up a huge production of a product possible of being manufactured by thousands of machine units scattered throughout an industry. All of them are crying for something to make and, to add to the difficulty there has been in recent years a tendency to overflow production onto equipment not originally intended for the manufacture of many products. This has been particularly true where machinery has been purchased at a bargain.

Not infrequently arises the necessity of (if possible) finding products which can be produced at a profit. The value of market studies is here apparent in that it is as much their function to indicate what should not be made as it is to point out what should be made. In recent years textile mills, cut off by style trend from many of their natural products, have ventured into the production of fabrics formerly not considered within their purview. What has not infrequently happened? On account of the tremendous number of machine units in the industry by the time production was in full swing prices have dropped and too often the mills have found that these ventures into new fields instead of being profitable, ate up all or more of the anticipated profit through payment of claims on defective merchandise or because prices dropped "out of sight."

Out of widespread recognition and prosecution of effective sales research and market studies would seem bound to come an involuntary rationing of production. If mill "A" is better adapted to making product No. 1 than is mill "B" who can better make product No. 2, then each respective unit profits most by not encroaching on the field of the other. Impossible and too Utopian it will be said. All too true if sales policies are to continue to be of the "follow the crowd" type. But not too Utopian for an industry where the major elements know their needs and the economic limitations of their equipment to make successfully certain products and these only. Careful analysis of markets and the adaption of equip-

Earle L. Milliken

"He may know what he's talking about so far as other industries are concerned, but textiles are different."

That, unfortunately, is the average reaction of textile manufacturers to a suggestion that market research and budgetary control might be of some help. Too often, the man who makes the suggestion, *doesn't* know textiles and although he's sure he's right, is not in a position to answer this objection.

The author of the accompanying article knows other industries—and knows textiles. His experience covers 19 years of executive responsibility in the electric light and power, electric railway, gas, bus, and rayon and silk textile fields.

Market research and budget control *have* been applied in textile mills. They *will* be applied to a far greater extent in the future. The sooner the industry grasps this fact, the quicker will be its progress.—*Editor.*

ment to these products will result almost automatically in each mill doing what is for its own good which should be synonymous with what is good for the other.

The Sales Budget

Going hand in hand with market studies are sales projections or budgets. Other industries can and have profited by such projections. Where textiles are concerned there intrudes in some cases the mental reservations mentioned earlier in this article. Yet in such industries as electrical and automobile manufacturing sales budgets are the handmaiden of successful progress and profits.

Now it will be said that these companies manufacture finished products. Actually many of them manufacture accessories only, later to become part of an assembled product. Specialization has developed a trend toward more and more items of commerce containing parts made by several independent manufacturers. The manufacturer of automobile tires, because he sells a portion of his output to car manufacturers, does not scorn a sales budget merely because he is not certain how many cars these respective manufacturers are to produce in a given period. He does know however what were sold to each customer of each type and size in previous years and the reasons why he did not sell more. From the carefully recorded trend of the business and making all possible allowances for possible future conditions, he can estimate with the help of his sales organization what can reasonably be sold. Upon these quota he prepares his sales projection for a given future period. Upon this he sets up his production schedule, estimates his raw material requirements, and goes ahead knowing he has done everything possible to project his future operations intelligently.

If only the manufacturers of goods sold in a "finished" state were to use sales budgets the more recent history of industry would reflect a much larger number of failures. Sales budgets largely based on market studies have been used and are a powerful weapon in meeting competition. If manufacturers in other lines find such studies invaluable there appears no valid reason why they are not equally adaptable to use in the textile industry.

Once given a sales projection the next step is a production schedule based on the former. It is a relatively simple matter. Material requirements are computed on a basis of the estimated production. The material schedule is set up which will insure deliveries at proper times—not too early so as to tie up too much capital in inventories—not too late to interfere with deliveries. Machine schedules, department by department, are drawn up to feed the elements of production consecutively to other departments as required. From the machine schedule a labor budget is now based on the requirements of labor for each given element of operation.

Having material and labor schedules it remains only to add overhead items, selling and administrative expense, and the cash required for capital expenditures—and the cash requirements at regular intervals during the projected period can be estimated.

Cash Estimates

The smaller the margin of working capital the more an industry needs a cash projection. It is far better to be able to gauge cash requirements weeks or even months ahead than to be obliged to resort precipitously to banks or other loans to meet a given situation. Properly prepared cash projections indicate to all who have an interest in the company that the management is looking ahead and anticipating insofar as is possible what may happen rather than be caught unawares and unprepared.

Flexibility Essential

Budgets, production schedules and cash projections cannot be inflexible. They must be amended and revised as frequently as conditions necessitate. In one organization with which the writer was connected for many years such projections were known as "bogies." They were something to shoot at. They were ideals to be approached as near as possible under the conditions prevailing. Deviations were to be expected and always forthcoming, but explanations always brought out facts that would otherwise have been overlooked.

It seems a far cry from market studies to a cash projection yet it must be apparent from the foregoing that the former is indispensable if the latter is to be intelligently prepared. No industry can run long successfully without budget control based on a comprehensive knowledge of markets. Any other procedure places the industry at the mercy of every ill wind.

The day may not be far distant when far seeing banks and other credit granting agencies will not look with favor on becoming a creditor of any manufacturing company not carrying on continuous market studies and the corollary, operating under budget control. The projections resulting from these policies are in a way more valuable than financial statements. The former will go far to keep red ink off the latter.

Market research is essential to straight thinking in laying out future operations. Budget control is essential to following through with such plans. Business carried on without these is not prosecuted in such a manner as to insure permanence of profits.

Mr. Milliken Says:

"The more susceptible the market to changes due to style, and the farther removed the manufacturer is from the ultimate consumer, the more he needs to analyze both present and potential markets. . . . "

"Policies can be fact-founded rather than 'hunch' founded. . . ."

"The demands on the manufacturers are but the sum totals of the demands of the consumers . . . . "

"There is bound to be a poor market for a product which has not the proper projected distribution laid out for it. . . . "

"Business carried on without these (market research and budget control) is not prosecuted in such a manner as to insure permanence of profits. . . ."

New Slants on Spinning Problems

Presented at S.T.A. Sectional Meeting

PROBLEMS relating to spinning, including the efficiency of long-draft systems, and recent developments in spooling, winding, and warping were among the topics discussed in the fall meeting of the spinner's section of Southern Textile Association which was held at the Franklin Hotel, Spartanburg, S. C., Nov. 20. Acting as chairman of the meeting, F. D. Lockman, superintendent, Monarch Mills, Lockhart, S. C., conducted the discussion.

T. W. Mullen, Roanoke Rapids, N. C., president of the Southern Textile Association, gave a brief talk in which he emphasized the importance of the organization's activities. Marshall Dilling, Gastonia, N. C., executive secretary, explained some of the work undertaken by the association.

The technical discussions were based upon a questionnaire distributed at the semi-annual meeting of the association in Charlotte in October. These were taken up in order and discussed, as follows:

Question—What is the minimum size mill that can profitably make the investment for Barber-Colman high-speed spooling and warping?

It was generally believed that any mill which had warp spinning sufficient to maintain the Barber-Colman spooler operating at 50% of its capacity could safely make the investment for this equipment. A rate of operation above 50% of capacity, it was pointed out, would naturally increase the amount of savings involved. J. S. Lockman, overseer of spinning, Monarch Mills, Lockhart, S. C., stated that with a 5½-in. traverse on 30s yarn, a 120-spindle Barber-Colman spooler would accommodate 10,980 spinning spindles.

Marshall Dilling, executive secretary of the association

Assuming that mill has good credit and can borrow money at 6%, it was felt that the mill would find it profitable to borrow and make the investment for high-speed spooling and warping, if sufficient funds were not available. Where the return on the investment is more than 10%, the improvement in weaving efficiency plus the reduction of cost in the spooling and warping department, was said to make the investment for high-speed spooling and warping a profitable one. In six months after the Barber-Colman system was installed in one mill, an increase of 1.68% in the weave-room production was obtained.

The actual cost of spooling and warping 30s yarn, as reported by three members, amounted to 0.28c., 0.33c., and 0.35c. per lb. Records on 93 beams turned out by the Barber-Colman system showed an average of 6.42 stops per beam of 34,000 yd., as compared with an average of 40 to 50 stops per beam on the old type spooler and warper. It was stated that yarn as fine as 60s is being run successfully on the Barber-Colman system at the same speed as that used for 30s. At the Seminole Mills, Clearwater, S. C., it was reported that 60s yarn had been run for two years on this system and averaged only 15 stops per beam of 24,000 yd. In addition to other economies already mentioned, several members pointed to considerable saving in floor space made possible by the installation of high-speed units.

Question—If a mill is using hand knotters which tie a weaver's knot, what benefit, if any, would the mill derive in the weaving department by installation of the Barber-Colman system or any other system of high-speed spooling and warping?

The installation of the high-speed spooling and warping system, it was stated, eliminates the need for a hand knotter and consequently avoids certain human errors inherent in hand operation. Frictionless handling of the yarn was said to result in more elasticity in the warp and better performance in the weave room. W. H. Connor, spinning overseer, Hoskins plant of Chadwick-Hoskins Co., Charlotte, N. C., reported a 98% weaving production on voiles and lawns where the Barber-Colman system is employed. He did not believe this performance could be surpassed by the use of a hand knotter.

Question—It is claimed by certain high-speed spooling and warping manufacturers and high-speed winding and warping manufacturers that, by the installation of their system, more elasticity is retained in the yarn: (a) In a mill where the slashing process is taking the minimum stretch out of the yarn, how would the installation of high-speed spooling and warping improve the weaving condition in the mill, if no change were made in the slashing process? (b) What is the relationship between breaking strength and elasticity? Will there be more elasticity in the yarn spun on broad-gage spinning where separators are not used, or on narrow gage where separators are needed? If there is a difference, will that difference justify the investment for broad-gage spinning?

The consensus of opinion was that more elasticity is retained in the yarn with the high-speed spooling and warping system and that this improves the weaving condition in the mill. The yarn exhibited higher breaking strength. Tire cord and

fabric manufacturers, according to Mr. Dilling, have devoted considerable attention to the relationship between elasticity and breaking strength.

Mr. Mullen stated that, theoretically, broad-gage spinning should make more elastic yarn than narrow gage on which separators were used, as it would seem that some elasticity would be removed as a result of the yarn beating against the separators. The experience of C. L. Chandler, superintendent, Gaffney (S. C.) Mfg. Co., tended to support Mr. Mullen's contention. New 3¼-in. gage spinning was found to produce yarn with an average of 5 lb. greater breaking strength than that spun on old 2¾-in. gage, separators being used in both cases. The wider-gage spinning frames were operated at a front-roll speed of 15 r.p.m. more than the 2¾-in. gage frames.

J. S. Lockman reported that he could not get the necessary speed on 3½-in. gage spinning until separators were installed. He did not believe that a front-roll speed of 130 r.p.m. on 3½-in. gage can be maintained without trouble from whipping unless a traveler of such weight is used that it will cause bad work. Another member stated that only on 4-in. gage spinning could he get as good work and operating speed without the use of separators.

In replacing old spinning machinery, however, it was generally believed that the purchase of machines having a gage wide enough to avoid the necessity of separators always pays, as it will make possible a better and stronger yarn. Mr. Chandler stated that the speed of front spinning rolls depends largely upon the length of the cotton. Recently, in changing from 1 5/16-in. to 1⅛-in. cotton, on 3½-in. gage spinning with spindle speed of 9,500 r.p.m., he found that the front-roll speed could be increased from 120 r.p.m. to 140 r.p.m. However, this speed was later reduced to 137 r.p.m., which was found to be very satisfactory where the spinners are running 10 and 12 sides.

Question—The installation of high speed spooling and warping has thrown a large number of first-class warpers on the market, and second-hand warpers can be bought as low as $25 each. Would it improve the weaving in the average mill which has the regular spooling and warping to purchase additional warpers at this low price; lower the speed on their present warpers to about 40 yd. per minute, instead of 60 yd. per minute; and let the warper hand have these additional warpers at the lower speed and same wages per week, thereby leaving the cost per lb. of warping the same?

The discussion of this question developed considerable difference of opinion as to whether any improvement in weaving would result from slower speeds in warping. One member increased the speed of his warpers from 40 to 62 yd. per min. and did not observe any difference in the number of stops. Another member had the same experience in increasing his warper speed from 40 to 55 yd. per minute. Mr. Connor reported that by speeding up his warpers to 52 yd. per min., he was able to eliminate one warper. On the other hand, L. E. Wofford, assistant superintendent, Inman (S. C.) Mills, stated that the purchase of additional warpers and a reduction of operating speeds will improve weaving efficiency.

It was pointed out that there is a limit of warper speed for various numbers of yarn. Mr. Barton, of the Lancaster (S. C.) Cotton Mills, declared that bad work in warping usually comes from the spoolers; therefore, he recommended a careful check of these machines. Recent tests in warping 30s yarn from 4x5 spools at a speed of 60 yd. per min., Mr. Barton said, revealed an average of 21 stops in 12-hr. operation. Mr. Nichols believed that a speed of more than 60 yd. per min. is too high, as the warper hand doesn't have sufficient time to look after selvages closely at high speeds.

Newton G. Hardie, superintendent, Oconee Mills Co., Westminster, S. C., recommended that mills would find it advisable, before buying old warpers, to run a set at the lower speeds to determine if better work in the weave room could be obtained. This suggestion was endorsed by several members.

Question—Can 30s yarn of good quality be made out of ⅞-in. cotton with the long draft system?

One member doubted if good 30s can be made from ⅞-in. cotton on either regular spinning or long draft. W. A. L. Sibley, superintendent, Whitney (S. C.) Mfg. Co., was of the opinion that the answer to this question depended largely upon who is judging the quality of the yarn or the fabric. He stated that his mill had made 30s yarn from ⅞-in. cotton that was accepted by the trade. This yarn was spun from 4.00 hank roving, drafting 15, with front-roll speed of 106 r.p.m., and spindle speed of 9,000 r.p.m.

W. E. Hammond, superintendent, Balfour (N. C.) Mills, reported that he is operating both long draft and regular spinning, the latter with an unweighted middle roll on warp yarn, drafting 15, and that he gets about one lb. greater breaking strength on the long draft. He declared that he is entirely satisfied with the results obtained on regular spinning running on long draft, and stated that he was able to eliminate six speeders out of 24 originally required. Mr. Hammond stated that, in replacing old spinning, a mill should not install anything but long draft.

Smith Crow, superintendent, Drayton Mills, Spartanburg, S. C., reported his experience with 75 spinning frames drafting 16.75 on 1 3/16-in. cotton. An aluminum middle roll weighing 1,550 grains is used in spinning 40s, 50s and 62s yarn. Mr. Crow stated that his mill was able to eliminate a certain number of jack frames and estimated that the saving in cost in the card room would run between ¼ and ½c. per lb.

Higher breaking strength averaging from five to ten lb. greater on long draft was reported by T. C. Collins, overseer spinning, Brandon Corp., Greenville, S. C., who gave his experience in spinning 31½s warp yarn on old Saco-Pettee spinning and on a long draft system applied to the same spinning. On the long draft system, 18 frames were operated, drafting 18.75 from 3.66 hank roving (double), at a front-roll speed of 118 r.p.m. and spindle speed of 9,665, with 1⅞-in. ring and 7-in. traverse. Cotton used was 1⅛ in. and there were 26.34 turns of twist per inch in the yarn. Eight bobbins of long-draft yarn weighed an average of 31.37 and had a breaking strength of 61.58, whereas eight bobbins of yarn from ordinary spinning with same speeds, ring size, and traverse weighed an average of 31.37 and had a breaking strength of only 53.57.

Question—How fine can yarns be spun to advantage with cork rolls?

Marshall Dilling reported that as high as 90s combed yarn had been spun with cork rolls in one of his plants. He stated that in some cases it was found necessary to increase the weight on leather back-rolls where cork front-rolls are used, but that it would not be necessary to weight cork back-rolls. Mr. Dilling also said that the cork should be "aged" before being put on the roll but that this ordinarily would not require more than a few weeks. He recommended the removal of all cork rolls

on a frame at one time—not to replace just the worn rolls on a frame. There are exceptions to this recommendation, however, as in the case of a hard end damaging the roll. When this occurs, all that is necessary is to take out the roll and allow it to rest for a few days, during which it will resume its normal shape.

Mr. Dilling runs his cork rolls slightly oversized in order to get longer life. His experience had been that the life of a leather-covered roll is about four months. The life of a cork roll, he said, was about eight months, after which a rebuffing would make them good for another eight months; and then, if there is enough stock, they can be rebuffed once more and used again. When it becomes necessary to replace his back rolls, Mr. Dilling stated that cork rolls may be installed there also. Cork rolls were said to have the tendency to flatten or flute more quickly than leather rolls; but, on the other hand, they resume normal shape more quickly.

In changing from leather to cork rolls, another member pointed out, it is necessary sometimes to change to a slightly heavier roving. For instance, where a 5.25 hank roving had been used with leather rolls, it might be necessary to substitute a 5.15 hank roving for cork rolls.

Question—What are the advantages, if any, of the reverse warp build over the regular, straight warp build?

In the reverse warp wind, it was explained, the stroke starts at 3½ in. to 4 in. and tapers down to 6 in., thus covering yarn on the bobbin as it fills. This keeps the yarn clean and avoids dust and soot settling on the yarn and causing streaks in the goods. However, this type of build will not spool on the Barber-Colman system. The resistance at the bottom of the bobbin, it was pointed out, causes the yarn to break at that point.

Question—How many bobbins can a doffer lift in a week of 55 hr. without being over-worked?

J. S. Lockman declared that doffing is one of the hardest, if not the hardest job, in the mill and that 10 min. to a 224-spindle frame is good doffing. Reports from other members on actual performance were, as follows:

Mill	Number of Bobbins Per Week (55 Hours)
A	52,632
B	59,136
C	43,750
D	67,100
E	69,120*
Average	58,348

*Note—Doffers don't piece up, but they twist up.

It was generally agreed that the answer to this question very largely depended upon the ability of the doffer, how far he has to carry the bobbins to dump, size of the bobbins, and whether or not doffers do their own piecing up.

Question—What system have you for checking up on bad warper work?

Several members explained their systems for checking on warper hand's work, but their methods were generally a modification of the same system. This is to have cards or tags printed with blanks for the following information: number of yarn, number of ends and length of warp, name of warper hand, date, number of turns run by day hand and night hand, etc. In some cases the cards are printed in duplicate with a perforated line in the center to facilitate tearing, so that one card can be attached to the warp when it goes to the slasher room, while the overseer retains the duplicate. The slasher tender indicates on the card any trouble with each warp, and these cards are returned to the overseer. By this method the trouble can be traced to the warper hand, and he can be taken to the slasher room and shown the difficulty caused by bad work.

Question—Of the total stops on warping, what is a fair percentage of warper stops in 10 hr. caused by tangled spools, weak yarn, spools run out, and slip knots? Explanation: Keep a record of total stops on all warpers for 10 hr. by placing a card on each warper with space for each item, such as, tangled spools, weak yarn, spools run out, slip knots, spools per beam. Take the total number of spools run in 10 hr., divided into each item, and this will give you the percentage of stops for each item.

Two mills reported the following results:

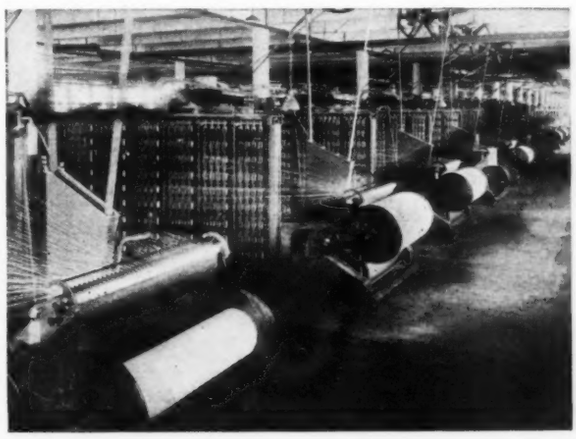
	High-Speed Warping System	Old Type Warpers
Tangled Spools	6.0%	14.0%
Weak Yarn	87.0	76.0
Spools Run Out	1.1	9.0
Slip Knots	3.0	1.0
Other Causes	0.9	. . .
	98.0%	100.0%

Note—The first column would total 100% if fractions had been carried out.

The mill using the high-speed warping system had 104 stops on 18 beams in 10 hr., whereas the other mill had an average of 2½ stops per hr. per warp, running 29s yarn at 55 yd. per minute.

H. H. Willis, director, Clemson College (S. C.) Textile School, asked if any members would explain their systems for keeping various kinds of filling separate. Mr. Hardie stated that he placed a card on the various filling boxes indicating the type of filling. Where there are not too many types of filling, the best plan was said to be to use different-colored bobbins.

In response to a request of the chairman, Mr. Chandler explained a system of oiling cotton in the finisher picker, after the stock has been cleaned. This system, recently developed, employs eight small nozzles to apply the oil in the last beating process. It was claimed that 100% of the fibers are subjected to the oil and that another advantage is the fact that the oil is applied after the cotton is cleaned. The outside appearance of the cards was said to be much cleaner after this system was installed and that there was a noticeable improvement in the running of the work.



Typical installation of high-speed warping equipment

Recent Investigations Shed New Light on Effect of Moisture *on Cotton Strength*

By L. C. Westford

◆ *Research on the effect of moisture on the strength and elasticity of cotton fibers and yarns has disclosed certain facts of interest and value to the textile manufacturer. Results of this work—most of which was performed by the British Cotton Industry Research Association, and reported where it is not readily available to American readers—are summarized in the accompanying article.*

A TEXTILE yarn is a more complex structure than is usually appreciated. Its strength and elastic properties are due to some very definite qualities of the fibers of which it is composed and to the manner in which they are put together. If the yarn is stronger at one time than at another, or stretches, or fails to stretch while in use, there are underlying reasons. To say, for instance, that such an effect is due to humidity is far from explaining it. On the other hand, if the fibers are studied first in a fundamental manner for any changes in their character brought about by moisture, the findings can be correlated with the behavior of yarns, with a subsequent better understanding of textiles and of their adaptation to various uses.

Fiber research is difficult and tedious because no two fibers of the same kind are just alike, and many are extremely different. It may, therefore, take hundreds or thousands of individual measurements to establish even one property of one sample of cotton. Most of us cannot find the time to work with individual fibers and may therefore be inclined to minimize the value of such work. It may often seem unnecessary, but a simple illustration will show clearly that we cannot fully understand fibers, except on the basis of actual measurement.

Single cotton fibers may seem uniform to the eye, but experiments on breaking them will show that the structure must be quite variable—perhaps imperfect. If a sample from the main part of a fiber breaks at a certain load, it is found that the pieces will each require a greater weight to break them. If the pieces from the second break are broken in their turn, a still higher load will be required. This shows clearly that the fiber, if free to do so, breaks at the weakest point; the second break naturally follows at the next weakest point, and so on.

Values found were 2.52 grams breaking strength for some of the weaker cotton hairs in a sample. The averages of the next breaks on the fragments were 3.80 grams, while the final breaks averaged 5.15 grams, or more than twice the original value. In more general terms, as a result of the repeated breaking of the longer cottons, the apparent strength is likely to be doubled at the third break, and trebled at the sixth.

It must now be obvious that if full length fibers are broken as test pieces, the weakest spot in each will break, and the average of these weakest spots will be reported as the fiber strength. On the other hand, if each fiber is broken once at a very short test length, many strong as well as weak spots will come into the test and the strength will appear higher. As an example, two cottons broken at millimeter lengths gave 60% and 85% higher tests than the same kinds of fibers broken at centimeter lengths.

As representative of such results, 1-mm. lengths of Sak. fibers broke at 8.29 grams, while the 10-mm. lengths broke at 5.18, showing not only an important consideration in testing, but also the great variability even in high-quality cotton. The breaking lengths were 58 and 36 kilometers by the two methods, and it is probable that the actual intrinsic strength of the cotton wall cellulose is about 60 kilometers if expressed as breaking length.

Returning for a moment to the testing of short lengths, this is of more practical account than it may seem. In a yarn the fiber is usually tested for an actual length of less than 1 cm., owing to support by other fibers and the twist. Although the sample may be long, the break occurs within a millimeter or two. It is a point of composite weakness but does not involve the weakest points in all the separate fibers concerned. Short length testing of fibers tends, therefore, to raise the strength figure to more nearly a true value.

Breaking tests of bundles of hairs have been described by various authors. While they may give comparative values they are open to objection because they do not yield nearly the full strength of the cotton. In certain tests of groups of 50 hairs each, only 30% of the actual strength was realized. This was undoubtedly due to lack of uniformity of stretch in mounting, even with the utmost care.

A better test has been based on a compact tuft, bound by a fine thread and tested through a very short length, only one-fiftieth of an inch left unsupported.

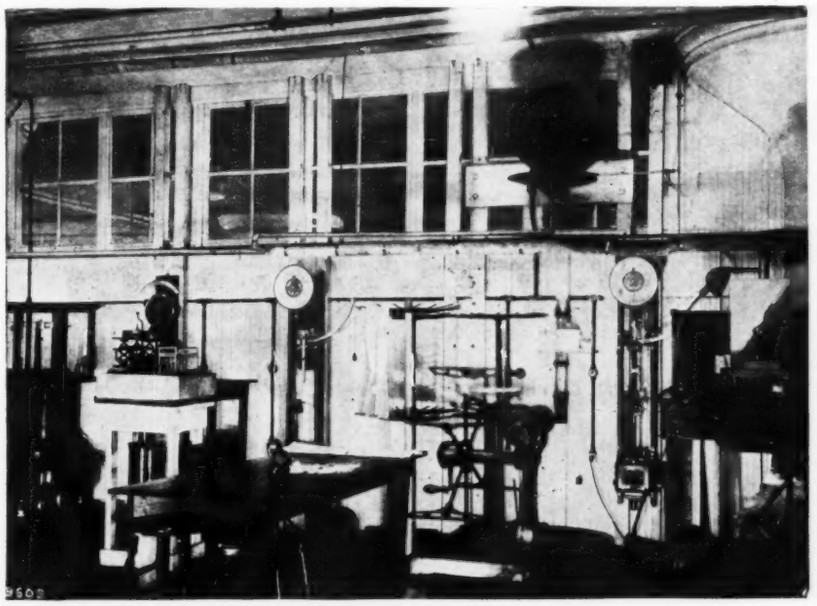
Influence of Humidity

While we speak of the effect of relative humidity, it is, of course, the actual moisture in the textiles which influences their behavior. Although theoretically the amount of moisture for each kind or lot of fiber is fixed by the relative humidity, the actual amount present may not necessarily correspond with the prevailing relative humidity, which normally changes almost con-

tinuously. Therefore results should not be expressed in terms of relative humidity, unless it is known that the textile materials are in actual equilibrium with the atmosphere at the time. The referring of results to regains instead of to humidities removes doubt on this point, and gives a more definite basis. For some purposes it may be desirable to discuss the strength or other properties of textiles at definite humidities, but for general use it seems better to the present writer to refer to the actual moisture present, especially since different samples of apparently similar material may contain different amounts of moisture even though in equilibrium with the same atmosphere.

In scientific work, such as that on single fibers, it may be entirely impracticable to make moisture determination on the very small samples used. Then, as in part of the present discussion, the relative humidity is the only available basis.

The usual form of curve which represents the amount of absorption of moisture by textiles from the atmosphere at various relative humidities is familiar, but the fact may sometimes be overlooked that the previous history of the material may considerably affect the values of these regains. For example, if similar samples of cotton have been kept dry and moist, respectively, and are then put into an atmosphere of moderate humidity, they will not come to exactly the same weight. The one which was kept dry will contain distinctly less moisture than the one which was kept moist. Undoubtedly some of the irregularities in older experimental work have arisen from the overlooking of such facts, although in practical mill work they may be of little importance.



Accurate testing requires precise control of atmospheric conditions

Properties of Fibers

In reviewing the effects of humidity, or its changes, it is natural to begin with the separate cotton fibers. The strength of individual cotton fibers is not greatly affected by humidity unless they are quite dry. Fibers at 66% relative humidity or above are about 10% or 15% stronger than at the moderate value of 44%, and the change above the higher humidity mentioned is practically negligible.

This change in strength would perhaps better be referred to material at the 66% humidity because this is so near to the ordinary standard condition for the testing of textile materials. On this more definite basis, cotton fibers are about 9 to 13% weaker at 44% relative humidity. Extremely dry fibers, at 10% relative humidity are about half as strong as at the standard condition, as determined by more limited experiments. In the present writer's experience an ordinary laboratory room has been observed almost down to this very dry state.

One observer has summarized the effect of humidity on fibers as follows: "Below 50% relative humidity it is considerable and fully accounts for the increase in the strength of the yarns, while above 60% relative humidity there is no appreciable change, so that the varying sensitivity of the strength of yarns to humidity in this region must be ascribable to other factors." The strength when wet may be a little lower than in the rather highly saturated atmosphere of 80% relative humidity.

Another extreme case tested was the effect of temperature on the strength of wet cotton hairs, it being found that heat produces a slight weakening and an increase in extension.

Elastic Properties of Fibers

It has been found that the rigidity of cotton fibers (referring to their resistance to twist) is the most convenient indication of the softening which manifests itself as pliability and plasticity, or as decreased springiness. The ability of single fibers to stretch increases with humidity until at moderate tensions a wet fiber has six times the extension of a dry one.

In yarn, the elongation-at-break is of more practical interest. This quantity increases with relative humidity or with an increase in the moisture content, a natural consequence of the decrease in rigidity and the increase in the stretching ability of the cotton fibers under such conditions.

Since the fibers vary in elongation at the break in the same way as yarns, it appears that the elastic properties of the single hairs have a more dominant influence than usually recognized.

Properties of Yarns

The strength of yarn increases through the ordinary range of humidities. It varies somewhat with the structure, but if the strength at 70% relative humidity is taken as a standard, the change in strength will be about 3.7% for each 10% of change in the humidity. The strength of such average yarn increases to a maximum at some point between 70%, and saturation and is then no further affected even by wetting.

Humidity changes the stretch of yarns more than the strength. In figures, a change of 10% in relative humidity causes a change in yarn extension of 7.1% of the value at 70% relative humidity, but beyond 85% there is little further change. Variations in count, twist,

or staple length produce changes in yarn extensions, but not to nearly the same extent as relative humidity (or moisture regain).

Yarn is weaker at higher temperatures, although the temperature has no great effect on strength or extension at a given humidity. For a 10° F. rise of temperature, the strength and extension drop by amounts roughly equivalent to decreases of 6% and 12% respectively in relative humidity. Drying at 100° C. (or 212° F.) permanently lowered the breaking point of yarn by about 2%.

The increase in strength is considered to be due to the swelling of cotton fibers in diameter as they absorb moisture, accompanied by softening and loss of the elasticity which ordinarily resists close packing and clinging together. When this effect is complete there is no more gain in strength with any amount of wetting.

Conditioning of Textiles

As of practical interest, ordinary yarns are stated to come to equilibrium following a change of atmosphere in about 30 min., most of the effect taking place in the first few minutes. The presence of size decreases this rate of change by about a third. Tire cord requires about 15 hr. to come to equilibrium with a moist atmosphere; cotton fabrics of average weight, about 3 hr.

Loose fibers with an almost perfect exposure to the air will change their regains very quickly. Raw stock in bulk will take a longer time to condition through and through, because a great deal of the air at the new relative humidity must penetrate and diffuse through the mass before the necessary amount of water can be brought to the cotton or carried away from it. Obviously, for conditioning textile materials it is best to have the air in motion; but whether moving or not, if it is of constant humidity, the material will come to equilibrium and stay there.

The temperature also affects the amount of moisture held by cotton, and in the opposite direction to relative humidity. A rise of temperature of 10° deg. F. reduces regain to the same extent as a drop of 1.4% relative humidity.

The present work was carried on under conditions of equilibrium whereby the cotton would contain as nearly as possible the proper amount of moisture for each relative humidity.

For practical mill work, sized yarns are also very important. Hence the properties of starch have been compared with those of cotton because of its wide use in sizing. Starch loses most of its strength at high humidities. Its strength even when relatively dry is only a tenth that of cotton. However, sizing with starch imparts strength to yarn, increasing the cling by actually sticking the sides of the fibers together. At high humidities the starch softens, and its effect is lost, although the yarn remains strong from the moisture.

The function of size is not to add strength, but to make the fibers adhere together and thus make their own strength more effective. Most ordinary sizes do this about equally, but they cause a loss of extension and a tendency to brittleness. These effects can be counteracted by an appropriate relative humidity. The sizing problem is, therefore, to find the sizes that remain more extensible and less brittle at moderate humidities.

The mixing of deliquescents with starch has been found to interfere with the moisture absorption of each, so that there is no advantage over starch alone. Such excessive drying as slightly weakens cotton probably has still more effect on starch.

The strength and extensibility of sized yarns depends almost entirely on the cotton. Changes in size cannot greatly alter these properties unless by the rather unlikely discovery of a very extensible adhesive with high tensile strength comparable to that of cotton.

Following are three of the sources of information used in the preparation of the foregoing article; in each will be found a bibliography of the earlier literature:

(1) Report on Artificial Humidity in Cotton Cloth Factories, compiled by F. T. Pierce. His Majesty's Stationery Office, London, 1928, pp. 55 to 82. (2) "The Influence of Humidity on the Elastic Properties of Cotton," Clayton and Pierce. *J. Textile Inst., 20,* T. 315, (1929). (3) Part IV, "The Influence of Humidity on the Elastic Properties of Cotton, The Tensile Behavior," Brown, Mann, and Pierce, *J. Textile Inst., 21,* T 186 (1930).

Appel Stresses Value of Specifications at Textile Chemist's Meeting

DR. W. D. APPEL, chief of the textile division of the Bureau of Standards, speaking at the November meeting of the New York Section of the American Association of Textile Chemists & Colorists, Nov. 20, pointed out that specifications are the chief connnecting link between producer and consumer. Taking as his subject "Problems of Textile Specifications," the speaker made it clear that the bureau does not set standards, but rather cooperates with the industry in devising methods by which the various physical properties of textile materials may be given numerical values.

Dr. Appel stated that there are two types of specifications—material, or manufacturer's specifications, and performance specifications. He also emphasized the fact that the two are often irrelevant, and that it is the latter group with which the consumer must be concerned. He should, on the other hand, be discouraged from demanding manufacturer's specifications.

During the course of his address, the speaker gave several examples of the work that is being done at the Bureau in regard to measuring the physical properties of textiles so that they can be evaluated numerically. The measurement of the handle of fabrics, one of the most recent and, at the same time, difficult undertakings of Dr. Appel's department was of particular interest. It has been found that stiffness, weight, thickness, softness, and resiliency are the factors which enter into this problem; and a numerical figure for representing the handle is gleaned by combining the results of the measurements of these various factors.

Following the address an open forum was held, during which the speaker answered many questions relative to the functions of his department.

Chairman Robt. H. Gaede, who presided over the meeting held at the Alexander Hamilton Hotel, Paterson, N. J., urged attendance at the annual meeting to be held in Boston, Dec. 4 and 5. Preceding the address, dinner was served to about 100 members.

New England Looks Forward

With Hard-Headed Confidence

CONFRONTED with a diversified program and many interesting speakers it is difficult to pick and choose among the various high-lights of the seventh New England Conference, held in Boston, Mass., Nov. 19 and 20, under the auspices of the New England Council. It is not difficult, however, to recognize the pervading spirit of the meeting, a feeling that business has worked down through the shifting sands of the depression and has built new, and solid, foundations on the bedrock of intelligence and hard work. One speaker characterized the attitude of those present as "constructive, conservative optimism."

Both the principal speakers and those who joined in the discussion forums put forth more facts per unit of oratory than is customary and the tendency was to outline specific methods of dealing with problems, rather than deliver dissertations on the problems themselves.

Among the many specific recommendations might be mentioned: the procedure proposed by Henry P. Kendall, of the Kendall Co., for making profits; the many case histories of concerns which have done a good job in weathering the storm, presented at the industrial session Friday morning; the detailed means of dealing with unemployment presented at the community session presided over by John F. Tinsley, vice-president and general manager, Crompton & Knowles Loom Works; the plan to spend $100,000 in advertising New England developed by recreational session; the quality control and merchandising plan which came from the agricultural group; the proposal by Hon. Hanford MacNider, American Minister to Canada, that much good-will and understanding would result if each American family got to know one Canadian family; and the decision of the six attending New England governors that they would intervene in the proceedings of the Interstate Commerce Commission concerning railroads, to the end that New England would be properly cared for.

The Conference program consisted of a general session Thursday afternoon, State dinners in the evening, section meetings Friday morning covering agriculture, industry, recreation and community developments, and a lunch and general session following the section meetings.

In his address of welcome at the first general session Governor Joseph B. Ely of Massachusetts took occasion to comment on the recent Lawrence strike, stating that he had been handicapped in his endeavors to settle the strike by the fact that there were apparently no authoritative representatives of the employees with whom he could deal. As the New England Council and the communities are interested in employer-employee relations, and in industry, he suggested that it might be well to look into the textile situation.

At the Massachusetts State dinner Henry P. Kendall referred to Governor Ely's remarks and stated his belief that the facts of the textile situation were known, but that it might be beneficial to have a committee investigate and further emphasize the facts. Mr. Kendall said that this was no time for easy thinking and that management and better management was the key to better business, pointing out the large gap between the best and just average management. He advocated concentration on processes of thinking, maintaining that in good times good results were often obtained from poor premises, but now was the time to examine premises. Among the sound processes, he stressed study of costs, budgeting, personnel, technical research, market research, and cooperation among industrialists.

The industrial session Friday morning was productive of much valuable data on what individual concerns have done to meet present business conditions. The dominating thought seemed to be concentration on sales problems and the development of new products. Some of the case histories and thoughts presented were as follows: entering new era of low price and keen competition but have confidence and an addition to plant will be started next week; business is now normal, as 1929 was a rainbow—put more time on sales and use intelligence; get executives to emerge from behind-the-desk stupor and work; amend Sherman Act; operating full time because new products were put out and young blood brought in and given responsibility; office work put on piece-rate basis with increase in production of over 300%; flexible budget which varies with sales; profit and loss statement available before seventh of each month to show quickly exact position; selling machinery on trial; reorganized selling, put in wage incentive and brought out three new products with result that sales increased 17% in one year and 1931 profits 10% greater than any previous year since present selling hook-up established; complete list of definite policies adopted concerning management, products and prices, merchandising policies and methods, advertising, sales organization and quotas.

Other speakers known to the textile trade were: Henry D. Sharpe of Brown & Sharpe and Philip C. Wentworth, treasurer, National Ring Traveler Co., Providence, R. I., who spoke at the Rhode Island dinner; and John M. Carmody, publishing director and editor-in-chief of *Factory and Industrial Management* who told the second general session of the impressions he received while on a recent survey of Russia for the McGraw-Hill Publishing Co. At this session it was announced by Harry C. Knight, president of the New England Council, that New England had cause for pride in that both first prizes and three of the six honorable mentions had been won by New England concerns in the nation-wide competition for the best evidence of modernization in the metal-working industry, the prizes being donated by *American Machinist*, a McGraw-Hill publication.

Twist *Influences Breaking Strength and Other Properties of Rayon Yarn*

By Homer A. Hamm and Richard S. Cleveland

◆ *Results of a systematic investigation to determine the effect of twist on the breaking strength, elongation at breaking point, and other properties of various types of rayon are given in the accompanying article which is abstracted from the Bureau of Standards Journal of Research for October, 1931. Studies made by a prominent English technologist, which deal more specifically with the relation between twist and important physical properties of acetate yarn will be reported in an early issue of* TEXTILE WORLD.

THE amount of twist inserted in rayon yarns varies from the usual few turns per inch to from 30 to 100 turns per inch in some crepe yarns. The relation between the twist and the strength, proportional limit, stretch at break, denier, and contraction of the yarn is of obvious importance. For this reason a systematic experimental study of this relationship has been made.

Yarns selected for this work are described in Table I. They were all well-known American brands and were obtained early in 1930. All had a nominal twist of but a few turns per inch. Samples having about twelve different twists were prepared from each of these yarns, using a commercial twisting frame equipped with travelers which would give the smallest practical tension without allowing excessive ballooning. The twists ranged from about 5 to 100 turns per inch.

The samples were thoroughly conditioned in an atmosphere of 65% relative humidity and a temperature of 70° F., and were tested under these conditions. The twist in 10-in. lengths of the yarn was determined, and the results were expressed in turns per inch. The average of ten determinations was taken to be the twist in the yarn. The denier of the yarn was calculated from the average weight of two 80-yd. skeins reeled from each bobbin.

TABLE I. DESCRIPTION OF YARNS

Sample No.	Type	Twist, turns per inch	Number of filaments	Denier
1	Cellulose acetate	2.0	40	145
2	Cuprammonium	5.2	112	149
3	Viscose	3.3	150	150
4	Delustered viscose	2.4	24	148
5	Delustered viscose	2.8	36	159
6	Delustered viscose	3.9	60	155

Breaking strength, proportional limit, and stretch were determined, using a pendulum type of tester with stress-strain recording attachment. The multiple-strand method was used and 150 ends were broken in each test. The speed of the lower jaw was 1 in. per min. and the initial distance between the jaws was 4 in. The breaking strength, proportional limit, and stretch were taken to be the average obtained from two stress-strain graphs for each yarn.

Additional tests were made to determine the effect of the load applied during twisting on the contraction of the yarn. A dead load was applied to the end of a 10-in. length. The yarn was then twisted, and the contraction observed for increments in twist of five turns per inch. The loads used were 15 and 43 grams. Viscose yarns ranging from 63 to 300 denier were studied.

The relation between breaking strength and amount of twist is shown graphically in Fig. 1A, and in Fig. 1B

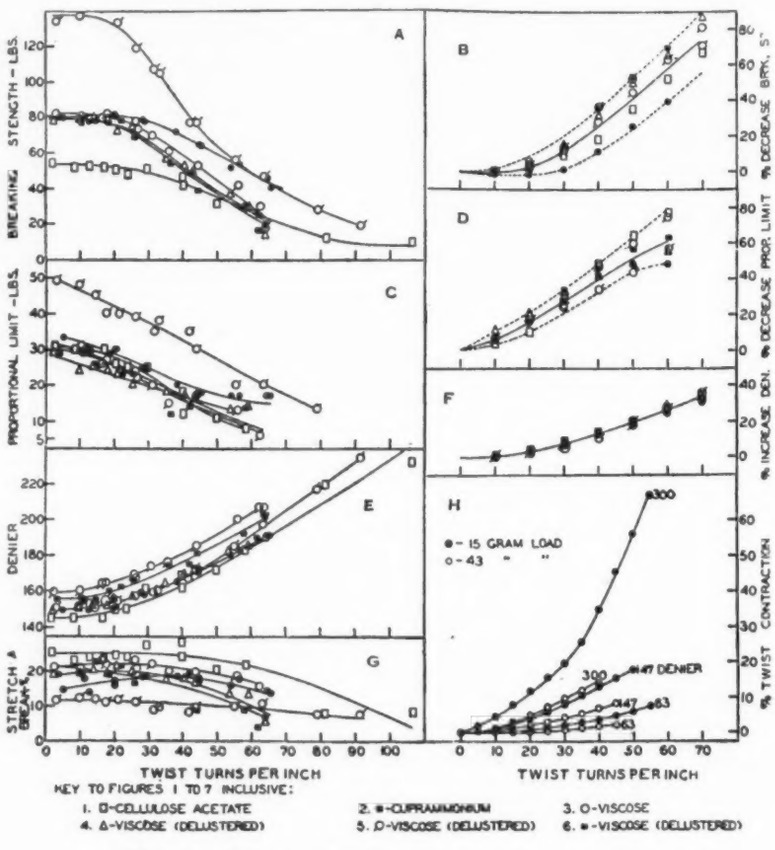


Fig. 1. Effect of twist on properties of rayon

is shown the percentage decrease in breaking strength with increase in twist. The solid curve in Fig. 1B represents the average values for all of the yarns and the broken curves minimum and maximum values. It will be seen that the breaking strength is not materially changed with an increase in twist up to about twenty turns per inch, but that it decreases rapidly with increase in twist beyond twenty turns. With a twist of 60 turns per inch the decrease in strength ranges from 40 to 70% for the yarns studied.

Proportional Limit

The proportional limit of a yarn is the stress (or load) at which the extension or stretch ceases to be proportional to the stress. Fig. 1C shows the proportional limit, and Fig. 1D the percentage decrease in proportional limit with increase in twist. The proportional limit decreases with increasing twist about 1% per turn. At 60 turns per inch the decrease in proportional limit varies from about 50 to 80%.

The relation between the stretch at break and the twist is shown in Fig. 1G. There is a general tendency for the stretch at break to decrease as the twist is increased, though the amount of stretch and the change in stretch varies with the yarn studied.

Denier and Contraction

The denier of the yarns at different twists and the percentage increase in denier with increase in twist are shown in Figs. 1E and 1F, respectively. Twisting increased the denier of all of the yarns at about the same rate.

This increase in denier should not be lost sight of in considering the relation between amount of twist and strength.

The percentage contraction resulting from twisting viscose rayon yarns under dead loads of 15 and 43 grams is shown in Fig. 1H. The contraction is greater with the smaller load and with the higher denier rating of the yarn.

James Robertson MacColl

James Robertson MacColl

JAMES ROBERTSON MACCOLL, aged 75, president of the Lorraine Mfg. Co., Pawtucket, R. I., and president of the Ponemah Mills, Taftville, Conn., died at his home in Providence, R. I., Nov. 23. He was an important figure in the development of the textile industry and its associations. Mr. MacColl was born in Glasgow, Scotland, April 2, 1856, the son of Hugh and Janet (Robertson) MacColl. He received his education at Anderson Academy, Glasgow High School and Glasgow Technical College, entering the textile industry with the firm of Henry Frybe & Son, manufacturers of cotton and woolen dress goods. In 1878 he entered business for himself as a member of Thompson & MacColl.

During a visit to this country, made in 1881, Mr. MacColl came in contact with W. F. and F. A. Sayles who were than starting the Lorraine Mfg. Co., and the following year Mr. MacColl became agent for the plant. When the Sayles interests withdrew from active management in 1896 he became a large stockholder and treasurer and secretary of the mill, holding these offices until 1920 when he became president. Mr. MacColl was interested in many textile activities and it was during his presidency of the New England Manufacturers Association, 1905-1907, that the scope of the organization was enlarged and the name changed to the National Association of Cotton Manufacturers. A son, William B. MacColl, was later president of the association, 1925-1927.

Among other textile activities, Mr. MacColl was president of the International Conference of Cotton Growers and Manufacturers, held in Washington, D. C., 1906, and Atlanta, Ga., the following year. He was chairman of the executive committee of the World Cotton Conference, New Orleans, La., 1919; chairman, National Council of American Cotton Manufacturers, 1919; president, Home Market Club, 1908-1910; director, National Association of Wool Manufacturers, and a director of the Wool Institute; executor and trustee of the Frank A. Sayles estate. Mr. MacColl also was president, Morris Plan Co. of R. I.; vice-president, Industrial Trust Co.; director of the Providence Gas Co. and of several manufacturers' mutual insurance companies; director, Mathieson Alkali Works; president, Economic Club of Providence; president R. I. Anti-Tuberculosis Association, 1907-1913; president of the Hope and Agawam Hunt clubs of Providence; director, R. I. Country Club. During the World War he was president of the British Relief Association of R. I., and a member of the R. I. Fuel Administration.

Mr. MacColl is survived by his widow and by five sons—W. B., treasurer of Lorraine; Kenneth D., vice-president and treasurer, J. & P. Coats, (R.I.) Inc.; and by James, Hugh and Norman A.

Erecting, Aligning, and Adjusting Full-Fashioned Machines

By M. C. Miller, M. E.

Mechanical Engineer, Manville, R. I.

◆ *In this installment of his treatise on adjusting the full-fashioned hosiery machine, Mr. Miller begins a discussion of machine erection. Many fixers are prone to correct trouble due to misalignment by adjusting mechanisms which should not be adjusted, and more thorough knowledge of erection methods will enable them to apply the correct remedies. The discussion will also prove of benefit to those mills which purchase second-hand machines and erect them through their own mechanical departments.**

TO ERECT and set up a full-fashioned hosiery machine properly is a very difficult operation, due to the length of the machine and the impossibility of building it heavy enough to be sufficiently rigid for self-alignment. It is not to be expected that the following mode of erection will enable anyone not skilled in the art to erect and align a machine properly. The suggestions contained herein are largely intended to bring to the mind of skilled erectors certain basic facts and to suggest a means of overcoming some of the difficulties of erection and later adjustment and alignment. Fixers will find a knowledge of erection methods particularly helpful in realigning machines which have been affected by floor sagging, unequal compression of the packing, and other detrimental influences. Fixers without such knowledge are likely to correct trouble due to misalignment by adjusting mechanism which should not be adjusted.

It is of course necessary for an erector to have a complete set of tools, wrenches, gauges, etc., which fit the particular machine to be erected. He should also have the necessary jacks with which to raise the machine while leveling and a long aligning cord or wire for stretching lengthwise along the finished edges of the machine. For this purpose, the writer prefers to use a very high-grade, thin, enameled fish-line, of high tensile strength, having by preference a metal hook or ring fitted to one end. Knots should never be tied or kinks formed in any portion of the line that is to be used for aligning. The erector should also have a high-grade metal-base level, the writer preferring a longer level than is ordinarily used for this work, as its longer base makes it more readily possible to determine whether a part is out of level.

Locating Machine Position

The first move to make, and a very important one in erecting a machine, is to determine from someone in authority exactly where the machine is to be located, as it is most difficult to move a set-up and aligned machine. This selected space should first be roughly tested to determine how near level it may be. To do this, it is necessary to draw a chalk line on the floor, which will later represent the position of the front foot line of the frames of the machine. A similar line should be marked on the floor to represent approximately the back foot line of the frames. These lines can best be snapped with a chalk cord, which should be part of every erector's kit. (Under no circumstances should the fine aligning cord be used for this purpose.)

The chalk lines should run parallel to adjoining machines; or, if no machines have as yet been erected, the lines should be located from a parallel wall. If it is impossible to measure from a parallel line, it will be necessary to erect a right-angle line from an adjoining end wall. This can most easily be done by marking a reasonably long base length c on the floor line at the end wall, as shown in Fig. 46, and then making a mark x on the floor 40 or 50 ft. from the wall at approximately right-angles to one of the two marks previously made. This length may be called b. By taking the common geometrical equation $a^2 = b^2 - c^2$, measuring the length a from the other mark at the wall to the previous mark x on the floor, and thereafter snapping the chalk line from x' to x, the erector may establish a line which is at right angles to the wall. The second chalk line previously noted should of course be placed parallel to this line.

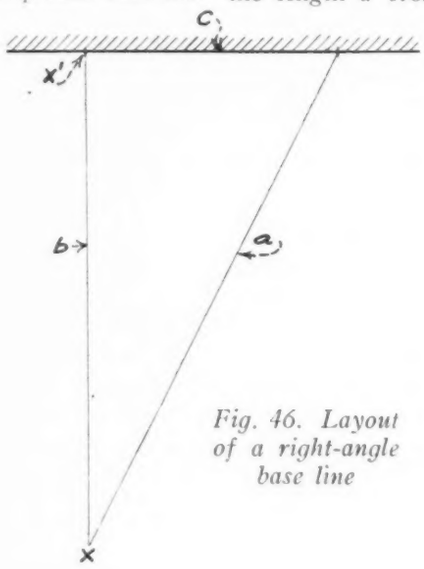


Fig. 46. Layout of a right-angle base line

By placing a pair of blocks along one of these lines, stretching the enameled aligning cord tightly over them, and shimming under one of the blocks until a level placed on the line shows that the cord is level, it will be readily possible to measure roughly the variation in floor level. By marking on the floor every few feet such variations and repeating this aligning along the other chalk mark, the high and low places in the floor can be noted.

*Previous installments of this series appeared May 31, July 26, Oct. 4, and Nov. 29, 1930; and March 21, April 25, July 11, Aug. 8, and Sept. 19, 1931.

The frames of the machine are now placed with the edge of their front feet on the proper chalk line, spacing them approximately the correct distance apart. After this the rails *A* and *B*, Fig. 47, can be loosely bolted to their frames.

With the frames attached loosely to the rails, shims of at least $\frac{1}{4}$-in. thickness at the highest portions of the floor are placed under the legs. All such shims should be flat and made of wood of like quality and grain, so that upon later compression of the wood the machine will not sag out of level.

The leveling of the other frames of the machine can then be accomplished by first drawing the rails more tightly to all their respective frame supports; then placing the level on the rails; and, with the use of jacks, raising the rails and frames at a position near each frame. After these steps have been taken, the required thickness of shim should be placed under each frame foot, first under the front feet and then under the back feet. Care should be taken that in shimming the back feet, the level is placed on the rail, not only lengthwise of the machine, but also crosswise, in this manner insuring that the machine will be level in both directions. Thereafter, all the rail bolts should be tightened and all the rails again tested with the level to make certain that no change has taken place.

If any or all of the rails and frames are provided with pin holes, it should be possible to tap the pins into place. Under no circumstances should these pins be driven into position unless they fit freely the aligned pin holes of the frame and rails. If the pin holes are not in alignment, it is a clear indication that the frames and rails are not properly aligned.

Great care should be exercised in fastening and aligning the rails; for if this work is not properly done, the attaching of other rails and parts will be made most difficult, and the result will be an improperly erected machine, which will always give trouble.

Applying Table

The table *C* should then be placed on the frames. If the previous aligning has been properly done, the pin holes with which this table is ordinarily equipped should align perfectly with the pin holes in the frames. This table should now be checked for levelness and straightness in two planes by use of the aligning cord.

A common error made by erectors is to stretch and lay the cord directly against any surface they may be checking. This procedure is not conducive to accuracy; for if there is a high place along the surface being aligned, it is impossible to gauge or measure it. The proper manner in which to use a cord is to lay and stretch it over two gauge blocks of like height, one at each end of the surface being measured. In this manner variations in levelness and straightness can be accurately gauged and measured.

The two upper and the front finished edges of the table should be so checked; and if the slightest variation exists, the frames under the point of variation must be raised, lowered, or brought to the front or back, as the case may demand. While so resetting the frames, the table pins should be removed and replaced only if and when the holes align to allow the respective pins to fall easily into place and be thereafter driven tight.

Placing Camshaft

The writer at this period of the erection prefers to place the camshaft into its bearings; for, with the camshaft in place, it is possible again to check the alignment. With a properly aligned machine the camshaft should be capable of turning freely.

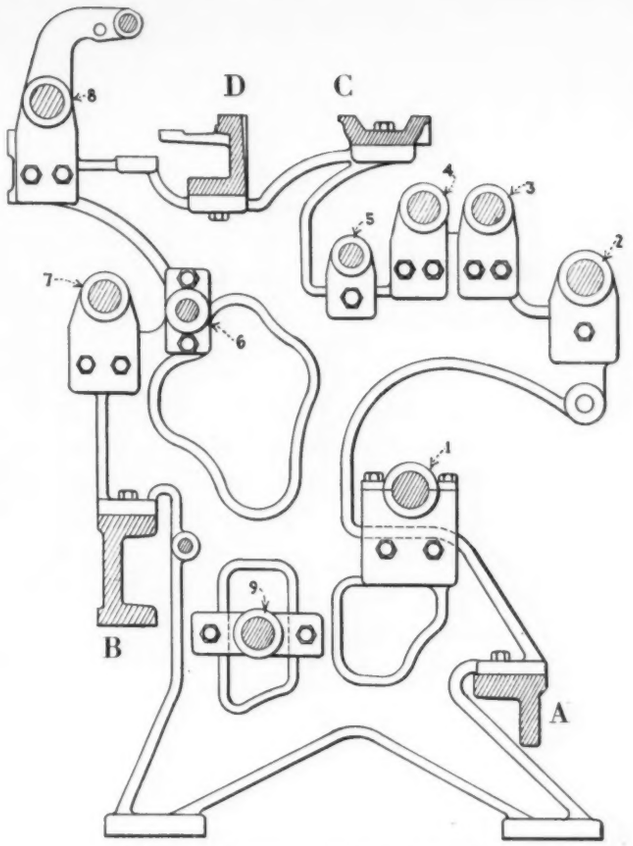


Fig. 47. Frame, rails, and bearings

If the camshaft will not turn freely after the edges and surfaces of the rails and table have been rechecked with the level and aligning cord, the trouble may be due to the camshaft not being straight. This can be determined by driving out the pins and slightly loosening the bolts of one camshaft bearing at a time, noting whether upon the rotation of the camshaft the loosened bearing is moved on its frame. Making this test at each bearing will clearly indicate whether or not the camshaft is straight and, if not, where it is bent and how much.

If the camshaft is bent, it is nearly impossible with modern machines to straighten it at the erection; and it should be returned to the factory for straightening or replacement. With the older machines, which had shafts of smaller diameter, it was possible, by prying and wedging, to straighten a shaft after a fashion; but such procedure at best is not desirable and need not be resorted to if the camshaft was straight in the first instance and was properly packed, shipped, and handled.

Assuming that we now have a free-running camshaft, that we have again rechecked the levelness of all the lengthwise-running surfaces in both planes, and that we have again checked for straightness with the aligning cord, the machine is ready for the application of its other parts.

Attaching Other Parts

The next piece to attach is the center bed *D*, Fig. 47. If this bed is not fitted with pins, it must be gauged to and from the bed *C*, great care being exercised to see that it is absolutely parallel to this bed. If it is fitted with pins,

(Continued on page 81)

Overseers' Round-Table

THIS department offers a new subject for discussion each week and gives readers' comments on problems introduced during previous weeks. The subject which was opened four weeks ago is closed this week and a summary of contributed ideas is given on opposite page

◆

Starting the Youngsters Off

Editor, Overseers' Round-Table:

THE TEXTILE industry, the same as any other industry, offers glittering prizes to men who can successfully serve its interests. At one time the textile section was regarded as the Cinderella of industry, because scientific control had not been successfully established within its borders, because working conditions were not equal to the general standard in other industries, because the rates of remuneration were, in general, incompatible with a high degree of intelligence, because it was said to possess no future for the trained mind.

Today, all that is changed. Vast and far reaching changes have taken place in production and marketing during the last twenty years. More and more the principles of science are being utilized to elucidate its problems. In the field of synthetic fibers undreamed of progress has been made, with the result that a new era in the production of textiles is indicated. To sum up, it may be said that the textile industry is at last coming into its own.

Since that is so, and few persons with a rational industrial outlook will doubt it, the opportunities for a young man in the textile industry are as good or better than those in many other industries. But the man who wishes to be successful must possess initiative, perseverence, courage, and faith in an old industry whose features are rapidly changing.

W. K.

Piece-Rates Are Up for

"JUST the other day," superintendent Chase addressed the meeting, "I heard of a New England paper concern that put its office work on piece-rate and it was found that the production increase in stenographic work was around 300% under the new system. That in itself is an interesting subject, but I think that we are more concerned with the broader problem. At any rate, this case I referred to started me thinking on whether the piece-rate plan is absolutely sound and, if it is sound, should new ways be found to extend its use in textile plants. Who has some ideas on the subject?"

"I always have ideas on any subject," Bill grinned, "but, to be serious, I think that this piece-rate problem is worth a lot of thought. Of course all these technical birds will tell you that it's a wonderful plan and will go on about concerns like the one you mention, boss, where production has apparently been increased a lot. However, from the standpoint of one who has the job of getting out quality and production under his nose every day, I must say that paying by the piece has many flaws. When you talk about quality you can't convince me that the workers won't turn out better work when they are paid straight time than when they have to hurry all the time to get a decent pay envelope. I don't need to remind you that there are lots of cases where the operatives work hard for a time and then stall because they don't want to let on that the rate is high and that they can take it easy and still make good money. And it's difficult to get a worker to stop stalling when he can come back that it is his own business how much he makes. Then again, you all know of cases where the rates are set so low by some greedy manufacturer that the operatives have to grind their lives out to make a living wage. When all is said and done, straight time gives quality and if the overseer is any good he will see that quantity is produced. This piece-rate system has too many

Chewing Tobacco

Editor, Overseers' Round-Table:

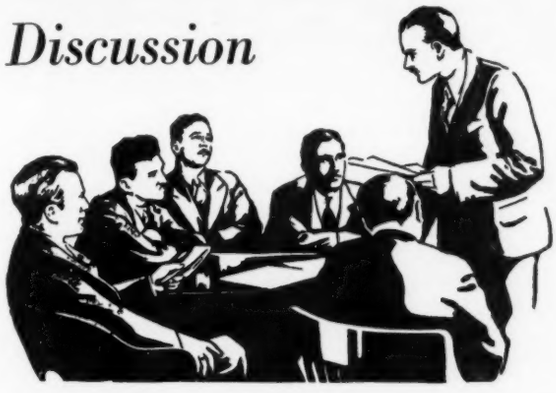
THERE CAN be no sound defense for an old custom as disgusting and injurious as chewing tobacco. Even in the best regulated mills you will find disobedience of rules and the no spitting rule never seems to bother tobacco chewers. When no one is looking a mouthful of juice is let fly, especially in the toilets, corners and the dark places where they think it won't be noticed. If there ever was a disgusting, unsanitary task for man to perform it is that of emptying or caring for spittoons.

Today we are striving to become masters of disease, by sanitation, individual drinking cups, bubblers, and all our national advertisers are proclaiming that this and that are untouched by human hands. When everything is coming to the purchaser in modern sanitary Cellophane wrappers, etc., why should a mill turn out products where germs might incubate in a tobacco puddle? No, it certainly does not aid the mill and if it is to be sanctioned just because it soothes some of the workers' nerves then it must be poor judgment for even the most veteran tobacco chewer in the army or navy never dares to chew when steady nerves are called for. Tobacco is an irritant to nerves.

For better workers and cleaner, more wholesome conditions, let's enforce a strict no chewing rule and thus bring up the standard of our organization.

R. A. MERCIER.

Up for Discussion



bad possibilities and I think it should be limited rather than extended."

"To my mind," Pete came back, "not one of Bill's arguments will hold water. Quality can be maintained with a piece-rate if you have good overseers and proper inspection, to say nothing of basing pay only on good work. His next two points, about too high or too low a rate, can be answered by saying that care should be taken in setting the rates and no good concern would do otherwise. I really can't see a single thing wrong with piece-rates and I'm in favor of extending the system to a lot of other places in the mill. Few would think of putting stenographic work on piece-rate and I'll bet there are lots of similar cases where it could be applied if you studied the proposition. Pay for what a person does is a much better plan than pay for spending a certain number of hours in the plant."

◆

Do *you* believe that the piece-rate principle of payment is right and that it should be extended to many other operations in the mill?

Overseers and others are invited to discuss this and other questions brought up in the super's talks. Letters accepted and published will be paid for without regard to length. Brevity is desirable.

Editor, Overseers' Round-Table:

THE EXPECTORATIONS of habitual tobacco masticators on mill floors, machinery or material should be curbed or halted. Whenever it gets to the point where one sees the effects of inaccuracy wherever he looks it is time to do something.

No matter how long one has been a smoker, or chewer, he can stop it during mill hours. It is just a question of psychology. Ask any smoker who has to give up during hours and he will verify this statement.

As long as the workers use an ounce of discretion tobacco chewing should be tolerated, but have a limit. A person might say that it is his business whether he chews or not. Yes, but whenever he contaminates everything near him it is the firm's business. "INCOGNITO."

Mingling Socially

Editor, Overseers' Round-Table:

I STRONGLY oppose Pete who is against the idea of the superintendent mingling socially with his overseers.

Regarding the bawling out incident, put by Pete for his case, I do not agree. If the overseer is not in the habit of keeping an "ace in the hole" the superintendent will ask for his opinion on many subjects. Moreover, when they mingle socially, the superintendent will have more respect for the overseer's opinions and, before bawling him out, which he most probably would not do, he will ask him to explain his actions. Instead of showing his superiority by lording it over him, he will think it over. Before they have mingled socially the overseer may resent criticism and curse the superintendent, thinking that he is showing his superiority, but, after mingling, he will not feel it at all, believing that he may be in the wrong.

The argument about the superintendent's wife not liking the overseer and the possibility of the superintendent forming a low opinion of him is silly. Suppose one has a good friend from an early age and later on, when he is married, his wife does not like his friend. Does it mean that he should change his opinion of his friend? The superintendent has sense enough not to think otherwise of his fine overseer because of his wife's remarks.

In the mill, if the overseer respects the superintendent, considers him as his superior, does not try to be very friendly, does not forget his position, and, in short, does not take undue advantage, I am confident there will never be a break in the harmony existing between the superintendent and his overseers should they mingle socially. P. B. JOSHI,
Bombay, India.

Keeping Out Outsiders

Editor, Overseers' Round-Table:

MY ANSWER to the question "do you believe that it is wise to take precautions against outsiders getting into the mill" is: The individual mill can do little by its own efforts to rid business of unfair practitioners or to keep "secret" manufacturing processes. The mills should unite as a group, take a definite stand, and agree upon what constitutes fair play in visiting and in receiving visitors.

They should cooperate with each other in the exchange of ideas and accomplishments and let it be a prominent part of their research work. One of the most distinct benefits that cooperation of this character has for any mill is the humanizing and broadening of the individual through contact with others in his own industry.

Cooperation is not an experiment. It has been tried and has proven to be the key which has unlocked the door to success. E. F. CARTEE.

◆

Summary of Discussion on Chewing in the Mill

An even 50% of those contributing voted outright against the chewing of tobacco in the mill. Another 29% favored regulation, while 9% stated that the workers would always chew and regulation would be no more effective than the Volstead Act. The remaining 12% suggested different plans among which were educational work, and absolute prohibition as a means of forcing the chewers to be so discreet that no bad effects would be seen in the mill.

Blanket Manufacturers Adopt "Part Wool" Label Code at Conference

AN important step toward proper designation of blankets as regards wool content was taken Nov. 20 when about 50 blanket manufacturers attended a meeting called by the Bureau of Standards at the New Yorker Hotel, New York, and adopted a schedule of specifications for labeling blankets. The new standards comprise ten wool percentage divisions, the method followed being that blankets containing 10 to 20% wool, for example, shall be labeled "part wool, not less than 10%"; the complete scale was adopted in the same form as published in the Nov. 14 issue of TEXTILE WORLD. Following animated discussion which covered both technical and lay aspects of the question, the conference voted that the new standards go into effect Feb. 1, 1932.

Following the usual procedure of the Bureau of Standards, the specifications will be sent out to the wool industry as a whole for comment and approval. The conference appointed a committee to supervise the task of adopting the standards. The committee comprises: for distributors—James L. Fri, representing the National Retail Dry Goods Association; Flint Garrison, the Wholesale Dry Goods Institute; and Benjamin M. Weiss, divisional merchandise manager, Gimbel Bros., New York; for the manufacturers — Chatham Mfg. Co., Nashua Mfg. Co., and Beacon Mfg. Co.; for organized users—American Hospital Association, American Home Economics Association, and the General Federation of Women's Clubs.

L. R. Gilbert, of the Division of Trade Standards, Bureau of Standards, presided at the conference. The meeting was notable for the spirit of cooperation manifested by all groups represented. The action taken was particularly significant as it means considerable technical change for many firms, both distributors and manufacturers. Wholesalers will have to change their labels in many cases, and it is likely that a number of manufacturers will change their lines to conform with more facility to the new standards.

The "part wool" issue is an old and vexing one in the blanket industry, as in other divisions of the wool trade, and the efforts being exercised to achieve reasonable accuracy in labeling blankets is analogous to that put forth of late by the woolen underwear industry, to cite an outstanding case. The problem is not completely solved by the adoption of the code at the conference, as it still remains for the blanket industry as a whole to give it force by general observance.

In comments at the conference, manufacturers drew attention to this aspect, remarking that industry-wide observance of such rules is not easily arrived at. However, it was agreed that the adoption of the code was a big step forward. The conference was attended by so large a representation of the leading blanket mills and their sympathy was so evidently with the plan, that it is felt the rest of the trade will be likely to fall in line without great delay.

Speakers at the conference included: James L. Fri, of the N.R.D.G.A., H. M. Ashby, of Kenwood Mills, John M. Smith of the American Hospital Association, and E. L. Greene, of the National Better Business Bureau. Mr. Greene stressed the legal aspects of the question, urging adoption of the code in order that the blanket manufacturers may "clean house as quickly as possible."

▸ Celanese Stages Novel Style Show on "Britannic"

Novelty was the keynote of a fashion show demonstrating the new styles for cruising and the southern resorts which was held Nov. 19 aboard the White Star Liner "Britannic" at her New York pier, by the Celanese Corp. of America. The event was attended by more than 2,000 persons, including representatives of the cutting-up, fabric manufacturing and retail trades as well as numerous fashion authorities. Consistent with the nautical background, the show which comprised a display by mannequins of 60 new models, emphasized the marine idea. The first group of 19 models showed a colorful range of beach pajamas, ensembles and bathing-suits, the chief fabrics being tricot, ninonese, crepe and the popular "Celanese Crepe Ondese." Then followed a varied display of sport coats, promenade suits, shore ensembles, deck coats and other smart apparel especially suitable for shipboard.

The third group showed a more unusual range of deck styles, including deck tea frocks and steamer chair dresses, and the last group comprised evening gowns of Celanese. The show covered the range of the leading Celanese fabrics, highlighting taffetas, failles, cantons, satins, and included some important displays of serge effects. The mannequins paraded to musical accompaniment and presented a distinctive and artistic picture against the luxurious background of the Britannic's Grand Salon. Following the fashion show, a supper-dance was held.

Woolen and Worsted Overseers Hold Annual Meeting in Boston

CONSIDERING the depressed business condition there was a good attendance at the 48th annual meeting of the National Association of Woolen and Worsted Overseers, held in Boston, Mass., Nov. 21. In addition to the usual social features, business transacted at the meeting included the election of officers, committee reports, a resolution favoring the entrance of trunk line railroads into New England as opposed to isolation, and the substitution of an appointed executive committee to replace the committee composed of past presidents which has proven unwieldy.

As is usual, the former first vice-president Thomas Parkin was elected president, to succeed James A. Ramsey, and second and third vice-presidents J. A. Campbell and A. L. Booth respectively, moved up, leaving the office of third vice-president contested. John J. Fanning, overseer of dressing, Shetucket Worsted Mills, Inc., Baltic, Conn., won over J. B. Driscoll for the latter office.

As J. H. Pickford, who was secretary to the association for many years, begged leave to retire from the office, the executive committee proposed James J. Burns and P. J. Harney for election. Mr. Harney, however, withdrew and Mr. Burns was unanimously elected. Thomas Buchan was re-elected treasurer of the association and of the beneficiary department and Thomas Dorgan continued as secretary of the beneficiary department. Trustees continuing in office: H. J. Harrington, Dalton, Mass.; James Wilson, overseer of dyeing, Providence, R. I.; P. J. Harney, overseer of weaving, Quinnebaug, Conn. Both Mr. Harrington and Mr. Wilson commented on the death of E. Fred Devrall.

The next order of business was a resolution offered by Frederic L. Babcock, and passed by the association, to the effect that the association favored the Rhode Island plan of railroad consolidation which would bring the trunk line railroads of this country and Canada into New England as opposed to the isolation favored by the other New England governors. Mr. Babcock expressed the opinion that it was of vital importance to the textile industry to have consolidated systems which would help the delivery of raw materials.

Mr. Harrington explained that he had spoken of the plan to abolish the present executive committee in favor of an appointed one at the last meeting and his motions were passed with little discussion. Upon motion duly made and seconded it was voted that a committee investigate means of strengthening the beneficiary department.

"Night before" was celebrated in the usual manner with entertainment and the renewal of friendships. After the meeting Saturday morning a dinner with suitable entertainment was enjoyed.

▸ Pure Dye Crepes Popular

Pure dye crepes are being used extensively by the $10.75 dress manufacturers, according to reports by Widder Bros., New York. This firm finds their quality 966 crepe, a leading pure-dye flat crepe, is especially in demand for Sunday night dresses. It is being featured in all the new range of Sunday night shades.

Jack Card Marvels at Protectors of "Natural" Laws

Editor, TEXTILE WORLD:

When Gerard Swope states that "to believe, as some do, that industry simply cannot be stabilized, is to adopt what Senator La Follette has termed the 'counsel of despair,' which would be a negation of all effort toward progress," he deals in a much too gentlemanly manner with a group of individuals whose attitude is beyond understanding.

To criticize constructively such a broad, and admittedly experimental, plan is helpful. To dismiss it with an inference that the law of supply and demand must be allowed to take its course, is childish.

I wonder why engineers are encouraged to direct natural phenomena for the good of mankind, but when economists "tinker" with a "natural law," they are adjudged guilty of some sort of cosmic crime.

JACK CARD.

▸ Asks More Backbone in Holding Firm Prices

Southern cotton manufacturers were urged to take advantage of the present favorable statistical position in the industry to hold out for a profitable price on their goods, in a statement made this week by K. P. Lewis, Durham, N. C., president of The Cotton Manufacturers Association of North Carolina.

"We have all suffered greatly during the last year or two from a rapidly dropping market for cotton and goods," Mr. Lewis pointed out in a message to the Charlotte (N. C.) Junior League for publication in a special cotton section of *The Charlotte Observer*.

The poor purchasing ability of the country at this time will, in my opinion, cause an increased popularity for all cotton cloths and if the managers of our mills will stop to think that the stocks of goods on hand are approximately 40% less than they were two years ago, it should make them all resolve to stop the practice of giving goods away.

"It seems to me a most favorable time for the mills to take a stand, and if the managers will use a little common sense and get out of their minds the recent practices of ruinous competition, I see no reason why 1932 cannot be a materially better year than 1931."

▸ Chatham to Supply "Wool Week" Souvenir Blankets

Chatham Mfg. Co., Winston-Salem, N. C., will manufacture blankets from wool given by Andrew Little, Emmett, Idaho, largest individual wool grower in America, for presentation to the 34 governors, senators and others who helped in the promotion of National Wool Week.

W. D. Anderson of Bibb Mfg. Co., Assails Socialistic Experiments

"THE curse of Socialism is that its philosophy undermines and destroys personal and individual responsibility," declared W. D. Anderson, President, Bibb Mfg. Co., Macon, Ga., in an address before the National Fertilizer Association's general convention held recently in Atlanta. The Federal Farm Board, legislation to restrict cotton acreage in the South, and the doctrine of high wage scales and shorter working hours, were criticized by Mr. Anderson in his defense of capitalism.

Mr. Anderson said, in part:

"Probably the outstanding experiment in socialisim in this country was the creation of the Federal Farm Board . . . The 'stabilization' of prices is an intriguing thought. It always sounds well and has an appeal. What the proponents of the idea of the stabilization of prices really mean is to advance prices beyond the market level by some fictitious plan or by the injection of some sort of stimulant.

"Anyway, as soon as the Federal Farm Board came into possession of this vast sum of money ($500,000,000), they were impelled to use it in some way. Apparently it burned to be spent. What their entrance into the cotton market and wheat market in the spring of 1930 cost the farmers, the cotton mills, and the merchants of this country will probably never be known. They attempted the impossible and, in the midst of their attempt, after they had builded a house of cards, they either saw that they had made a stupendous blunder or else they did not have money to go forward with it and the whole thing collapsed . . .

"Another costly venture of this country into socialism, in this instance outside of legislative enactment, has been the frantic propaganda that has supposedly emanated from Washington and administrative circles to the effect that wages should not be reduced—that to do so would tend to destroy the purchasing power of our citizens. To put this theory into actual practice, under the conditions existing in this country for the last two years, involved the encroachment upon the capital assets of the country to pay operating costs.

"No one, least of all the intelligent industrialist, ever reduced wages from choice and preference. In all my business experience, I have never seen as much resistance to the pressure and need for lower costs through wage reductions as has characterized the thinking of employers during the period of this depression. However, some action in the matter is not a matter of choice—it is an economic necessity if business is to exist and afford an opportunity for work for those who are seeking it and needing it.

"My own idea is that the rank and file of workers are today perfectly willing to accept a reasonable reduction in wages but, unfortunately, they are badly advised by their leaders and the reconstruction and rehabilitation of business are being delayed. We are plainly entering upon an era of lower prices on everything utilized and consumed by humanity, and as soon as we can get everything which serves the need of humanity on somewhat of an even keel as to price or cost, the quicker we will lay a firm foundation on which we can build for a better day.

"I cannot fail to mention another manifestation of insidious growth of Socialism in our thinking. I refer to the active propaganda for a shorter working week and a shorter working day which seems to be gaining ground in the thinking of people all over this country.

"The curse of Socialism is its philosophy of indolence for the individual. The idea of doing less work and more loafing is attractive to many. The trouble is that too many of us got rich a while back and quit our work for the golf links, the picture shows, the vacation tours, and other plans for pleasant loafing. Certainly, there is no precedent in history on which any sound argument for less work and more loafing could based. There is nothing truer than the old statement that an idle brain is the Devil's workshop, and if we should put the people of this country to loafing and idling for half their time, I believe that consequences would be too terrific for imaginaiton . . .

"We have all been through a very trying experience. Many of us are depressed because we have seen the efforts of our lives' work destroyed, either in whole or in part. Our hopes have been frustrated to a degree and some of our ideals have been badly bruised. The gloom in places has been thick enough to feel and dark enough to shut out the sunlight. My own idea is that the situation is clearing. If there is enough sanity in this country to prevent us from drifting further into the miasma and quagmire of Socialism, I believe that a new day of opportunity is dawning and that the opportunity for great achievement in business and in every other relation of life is very bright."

▸ New England Operates Over Half Wide Sheeting Looms

The migration of cotton manufacturing to the South, such a conspicuous development in the ten-year period following the World War, did not extend into the wide sheeting division of the industry as it did into other groups. A recent survey of productive equipment in the wide sheeting, sheet and pillow case division reveals that of the country's total of approximately 25,670 looms, 13,441 looms (52.4%) are located in the North. On the other hand, only 11,529 looms (44.9%) are found in the cotton growing states, while 700 looms (2.7%) are located in the Middle West.

In the wide sheeting division, this survey shows, more than 70% of the total productive capacity is represented by only eight different sales organizations, which are, as follows: Parker, Wilder & Co.; Pepperell Mfg. Co.; Taylor, Clapp & Beall Co.; Riverside & Dan River Cotton Mills; Joshua L. Baily & Co.; Deering, Milliken & Co.; Minot, Hooper & Co., and Cannon Mills, Inc.

NEWS about MEN

Joseph C. Bamford, secretary-treasurer of Reliance Piece Dye Works, Paterson, N. J., who was elected president Sept. 1 to fill the unexpired term of **P. J. Wood,** vice-president, agent and superintendent of Oriental Silk Printing Co., Paterson, N. J., who resigned, was reelected president of the Silk Dyers & Printer Association at its annual meeting held last week in Paterson. **Robert Blum,** of United Piece Dye Works, Lodi, N. J., was elected a vice-president of the Association Sept. 1, to fill the place left vacant by Mr. Bamford. At the meeting held Sept. 17, Mr. Blum was reelected, and Alexander Patterson was reelected secretary and treasurer.

Samuel A. Salvage, president of the Viscose Co., New York, sailed for New York Nov. 21, on the maiden voyage of the Canadian Pacific liner "Empress of Britain." Mr. Salvage has been spending a vacation in Europe since the end of October.

Floyd J. Shutts, president of the Ballston-Stillwater (N. Y.) Knitting Co., is among a group of prominent northern New York mill men who have received permission from the government to organize a federal banking institution in Mechanicville, N. Y. A charter will be secured as soon as plans crystalize. Mr. Shutts will be a director in the new organization.

G. C. Good, president and treasurer of the Globe Knitting Works, Grand Rapids, Mich., which is employing 600 workers at the present time, thinks that the textile industry is manifesting a healthier tone, speaking from his own observation and experience. Sales at his mill are 20% ahead of those for a corresponding period of a year ago even though prices are approximately 25% less.

Ferdinand Thun, president of the Berkshire Knitting Mills, Reading, Pa., will give to the Berks County Historical Society, a bust of **Friedrich List,** German railway founder, and once a resident of Reading. Mr. List lived in Reading for six years, from 1826 to 1832. He discovered anthracite coal mines near Tamaqua and built a railroad line from that town to Port Clinton. He came at the invitation of Marquis de Lafayette and accompanied him on his tour of America. Upon his return to Europe, he was United States consul at Leipzig, appointed by Andrew Jackson, then President. The bust is being made by **Prof. Adolf Lehnert,** German sculptor, and will be finished in about six months.

W. H. Cooper, formerly vice-president of the Bigelow-Sanford Carpet Co., Amsterdam, N. Y., has left for Honolulu where he will spend the winter.

William W. D. Ourseler, former proprietor of the Integrity Mills, Philadelphia, which were sold to Goodimate Co., men's clothing manufacturers, will be in charge of the production of fabrics.

W. M. Vermilye, former treasurer of the Thomaston (Ga.) Cotton Mills, also connected with Marshall Field & Co., and the Allied Chemical & Dye Corp., has been elected treasurer of the Knox Hat Co., New York.

John Nash McCullaugh, general manager of the Berkshire Knitting Mills, Reading, Pa., will take his first vacation since joining the company last May. He and Mrs. McCullaugh sailed for Italy last Monday and intend to go to Africa. Later they will tour the continent and return about the middle of January. He was managing director of the National Association of Hosiery & Underwear Manufacturers for nine and one-half years before going with the Berkshire company.

Charles R. Collins, of Charlotte, N. C., has been elected treasurer of Clover (S. C.) Mills Co., succeeding **John Tillett,** who recently resigned to accept a position with the Leaksville Woolen Mills, of Charlotte, Homestead, and Spray, N. C.

Irving K. Hessberg, vice-president, in charge of the glove department of the Van Raalte Co., New York, sailed for Europe last week. He will make his headquarters at the company offices in Chemnitz, Germany, but expects to spend some time in Paris.

Emil Flory, formerly vice-president in charge of printing at the Lyons Piece Dye Works, Paterson, N. J., has joined the staff of Kapo Silk Dyeing & Finishing Co., Haledon, N. J.

Frank E. Fitzpatrick, Washington, D. C., representative of National Wool Marketing Corp., who has been functioning as secretary of the National Wool Week Committee for the last six weeks, has left New York for Washington to dispatch some accumulated work. When this is done he will leave for Boston for a vacation and later on will go to Chicago.

Russell Clarke has been nominated president of the New Orleans Cotton Exchange. The following officers were also named by the nominating committee: **C. P. Ellis, Jr.,** for vice-president, and **John N. Steward, Jr.,** for treasurer. Directors to serve during the coming year as suggested by the committee would be **C. Whitney Bouden, George S. Frierson, Charles W. Wells, J. P. Henican, Edward S. Butler, E. C. Lea, Thomas A. Parker, Oscar P. Green, Charles E. Fenner, Garner H. Tullis, J. W. George, H. H. Greene,** of West Point, Ga., **Sherman Pardue and J. H. Hutton,** of Houston, Texas. The annual election occurs Dec. 7.

Sidney S. Korzenik has been appointed associate secretary of the National Outerwear Association.

Frank J. Collins, former sales manager of Paul Guenther, Inc., hosiery manufacturer, has been appointed head of the hosiery division of the Belding Heminway Co., New York.

H. Barrett, of Dominion Woolens & Worsteds, Ltd., Toronto, Ont., Canada, has been elected president of the Canadian Woolen and Knit Manufacturers Association. **Douglas Woods,** of the York Knitting Mills, Toronto, was elected vice-president of the association.

Fred W. Stanton, head colorist for the Sussex Print Works, Newton, N. J., who resigned last July to join the Disco Dyeing Corp., Paterson, N. J., is superintendent of printing. **John Nehrings,** dyer, and **Charles Ulmer,** tin-weighter, since the organization of the company,

Textile Calendar

American Society of Mechanical Engineers, Textile Division, Annual Meeting, Engineers Club, New York, Dec. 2, 1931. (Also annual meeting of parent organization.)

American Association of Textile Chemists and Colorists, Annual Meeting, Hotel Statler, Boston, Mass., Dec. 4 and 5, 1931.

Cotton Manufacturers Association of North Carolina, Fall Meeting, Carolina Hotel, Pinehurst, N. C., Dec. 4 and 5, 1931.

Textile Forum, N.A.C.M., for overseers of spinning, Chamber of Commerce Bldg., Boston, Mass., Dec. 10, 1931.

Wool Blanket Manufacturers, Quarterly meeting, New York, Jan. 14, 1932.

Textile Forum, N.A.C.M., for master mechanics, Chamber of Commerce Bldg., Boston, Mass., Jan. 14, 1932.

Textile Forum, N.A.C.M., for overseers of warp preparation and weaving, Chamber of Commerce Bldg., Boston, Mass., Feb. 11, 1932.

Textile Forum, N.A.C.M., for overseers of dyeing, bleaching and cloth room, Chamber of Commerce Bldg., Boston, Mass., Mar. 10, 1932.

National Association of Hosiery and Underwear Manufacturers, Annual Meeting, Commercial Museum, Philadelphia, Pa., April 14, 1932.

Knitting Arts Exhibition, 28th Annual Show, Commercial Museum, Philadelphia, April 11 to 15, 1932.

Textile Forum, N.A.C.M., General Meeting for agents and superintendents, Chamber of Commerce Bldg., Boston, Mass., April or May, 1932. (Date to be set later.)

Second National Cotton Week, nation-wide promotional campaign, May 16 to 21, 1932.

Southern Textile Exposition, Textile Hall, Greenville, S. C., Oct. 17 to 22, 1932.

continue in their respective positions. **A. W. Peardon** is directing head of the entire plant, and his son **Roswell C. Peardon,** is president of the company.

Arthur S. Congdon, in the New York office of the Pepperell Mfg. Co., has returned following an operation for appendicitis.

W. P. MacDougall, assistant general manager and secretary of Belding-Corticelli, Ltd., Montreal, Que., Canada, has assumed his duties as general manager of the company. He succeeds **C. A. Reynalds** who died earlier in the year.

Donald Z. Lemieux, newly appointed general manager of the Globe Mills of the American Woolen Co., Utica, N. Y., has arrived to take charge. In speaking at a luncheon of the Chamber of Commerce there, he announced the fact that 800 persons would be given employment after Jan. 1. At present 60 men are installing new machinery. Mr. Lemieux has been with the American Woolen Co. for 26 years, and manager of the Providence mills since 1919.

O. L. Wagstaff has resigned as general manager and superintendent of the Amazon Cotton Mills, Thomasville, N. C., but has not yet announced his future plans. **W. H. Curlee,** who has been assistant manager, was appointed superintendent, while **David A. Long, Jr.,** has been made general manager.

J. H. Bell, former superintendent and managing director of Tayside Textiles, Ltd., Perth, Ont., Canada, has accepted a position with Dominion Woollens & Worsteds, Ltd., as manager of the Auburn Mills, Peterborough, Ont.

Frank H. Ernst, production superintendent of the Old Hickory, Tenn., plants of the du Pont Rayon Co., is

Congressman Albert H. Vestal, who spoke on design piracy at Paterson, N. J., silk convention last week

convalescing satisfactorily following a recent critical illness.

L. P. Duncan, superintendent, Inman (S. C.) Mills, was severely bruised and cut Nov. 11 in an automobile accident in which Mrs. Duncan was fatally injured. Their six-year-old twin daughters, Virginia and Vivian, riding on the rear seat, were not injured.

A. Frank Bruton, veteran mill man, has been secured as superintendent of Dacotah Cotton Mills, Inc., Lexington, N. C., and has been there several weeks making up samples and attending to adjustments of the product and the resumption of full operation. Mr. Bruton was formerly superintendent of this plant for some nine or ten years.

J. V. Smeallie, purchasing agent of the Mohawk Carpet Mills, Amsterdam, N. Y., has completed a series of illustrated lectures in up-state cities on the art of rug weaving.

R. C. McIllroy, formerly associated with the W. S. Libby Co., and Columbia Mills, Lewiston, Me., is now doing research work on staple rayon with the Nashua (N. H.) Mfg. Co.

James A. Penz, who was in charge of the New York office of Knoxville (Tenn.) Knitting Mills Co., until sales were handled through Amory Browne & Co., New York, has become sales manager of the Adams Mfg. Co., Shelton, Conn.

John H. Voegelin, assistant sales manager of The Viscose Co., New York, in charge of visca and Monofil products, who has been ill at his home for the last few weeks, is well on the way to recovery. Mr. Voegelin is expected back at the office of the company in the near future.

R. C. Brown, sales manager of the elastic web division of the Russell Mfg. Co., New York, has moved his headquarters from the New York office to the factory at Middletown, Conn.

Benjamin B. Mann, former manager of the cutters' sales division of Cheney Bros., New York, is organizing a new specialized style fabric business and will cater to the better grade dress manufacturers and retail trades. The new firm will be known as Mann & Delaney, Inc., 1441 Broadway, New York.

Edward B. Bell succeeds **William F. Hines** as overseer of dyeing at the Malden (Mass.) Spinning & Dyeing Co.

Obituary

Charles Westfield Coker

Charles Westfield Coker, president, Sonoco Products Co., Hartsville, S. C., manufacturer of a wide variety of paper products for the textile trade and one of the leading citizens of South Carolina, died at his home Nov. 21 from a sudden heart attack that followed a slight illness of only two days' duration. Mr. Coker, who was 53 years of age, was a son of the late Major James L. Coker, and a brother of David R. Coker, internationally known cotton expert. Mr. Coker for many years had been active in public life, serving two terms as mayor of Hartsville, for eight years on the State Board of Public Welfare, and from 1917 to 1925 on the State Tax Commission. At the time of his death he was vice-chairman of the South Carolina power rate investigating committee and was district chairman of the South Carolina Progress Association. He served as State senator in 1930 and was president of the Hartsville Chamber of Commerce from 1903 until his death. He was a director in the North Carolina Bank & Trust Co., the Pioneer Life Insurance Co., and the Textile Paper Tube Co., of London, England. He was a leader in humanitarian activities and was instrumental in the foundation of the Darlington - Florence Tuberculosis Sanitorium. In addition he was a member of the executive council of the South Carolina State Council for Child Health and Protection and for the South Carolina State Conference for Social Work. He is survived by his widow and two sons, James Coker and Charles Coker, of Hartsville; three brothers: David R. Coker and James L. Coker, of Hartsville; Dr. W. C. Coker, Chapel Hill, N. C.; and one sister, Mrs. Richard F. Watson, Greenville, S. C.

Joseph W. Salz

Joseph W. Salz, vice-president of the San Francisco Wool Trade Association, and head of the J. W. Salz Wool Co. of that city died recently.

Joseph A. Pelligrini

Joseph A. Pelligrini, of the Rayon Piece Dyeing Corp., North Bergen, N. J., died Nov. 18 at his home in Paterson, N. J.

John Hall

John Hall, retired superintendent of the Hamilton Woolen Co., Southbridge, Mass., and the oldest resident of that town, died at his home there on Nov. 20, after a long illness. He was 94 years old, a native of Denny, Scotland, and had lived in Southbridge for 60 years. He was a color mixer for the company before becoming superintendent. He leaves three daughters and five sons.

Robert J. McGuinn

Robert J. McGuinn, aged 41 years, died Nov. 20, at Erlanger, N. C. He was a second hand in the spinning department of the Erlanger (N. C.) Cotton Mills. He is survived by his widow and four sons.

Fred Burrows

Fred Burrows, overseer of spinning for many years at the Elmdale mill of S. F. Scott & Sons, Inc., Uxbridge, Mass., who retired recently owing to ill health, died at his home on Nov. 16, as the result of a paralytic shock sustained a few days previously. He was 61 years old and a native of Canada.

H. F. Wilberg

H. F. Wilberg, 55 years old, foreman in the weaving department at the Brickner Woolen Mills, Sheboygan Falls, Wis., died Nov. 10, following an illness of several days. He had been connected with the local concern for 35 years. He is survived by his mother and five children.

NEWS about MILLS

Cotton

York Mfg. Co., Saco, Me., loomfixers have accepted a reduction in wages in line with a general reduction that has been given all employees of the mill.

***American Printing Co.,** Fall River, Mass. Wage cuts were extended to the printing division this week. Reductions were put into effect in the cotton goods divison several months ago as well as among the salaried employees of the printing division. This new readjustment was not over 10% and in some cases less than that. About 1,000 employees will feel it.

Union Cotton Mfg. Co., Fall River, Mass., has been sold to Walter E. O'Hara. He intends to reconstruct the buildings to house smaller plants. Associated with Mr. O'Hara in the purchase were Edmond Cote and Wilfred Ainsworth, who have formed a company to be known as the **Union Realty Corp.**

Nashawena Mills, and **Nonquitt Mills,** New Bedford, Mass., have announced a 10% reduction in wages, effective Dec. 7.

New York Mills, N. Y. Wage reductions of 10% effective Nov. 30 have been announced in the plants of the **New York Mills Corp.,** and the **Oneida Bleachery, Inc.,** as well as at the **Utica Willowvale Bleaching Co.,** Chadwicks, N. Y., and its local branch in Utica.

***Proximity Mfg. Co.,** Greensboro, N. C., has started construction work on a $50,000 cotton warehouse near the **White Oak** plant. It will be of brick and steel construction and will be completed about Jan. 1.

***Cannon Mills Co.,** Kannapolis, N. C. The $50,000 addition to its sheet finishing department, will be approximately 200x150 ft. This extension will provide employment for about 150 additional workers when completed.

Worth Spinning Co., Stony Point, N. C., has been formed by the **Johnston Mfg. Co.,** Charlotte, N. C., and has started operation of the **Watts Spinning Co.** plant, a 10,000-spindle combed yarn mill, which was closed last March. The plant resumed operations on a full day shift.

Lonsdale Co., Phenix, R. I., resumed 10% operations last Monday with 100 looms and other departments in accordance.

Brandon Corp., American Spinning Co., Victor-Monaghan Co., and **Union Bleachery,** Greenville, S. C., made no plans to close for the Thanksgiving holiday.

***Pacific Mills, Lyman (S. C.) Division.** Progress is being made on the new addition and work will probably be completed by Feb. 1. Eight printing machines will be installed in the building which is being erected by Gallivan Building Co., Greenville.

Dallas (Tex.) Cotton Mills Co., has adopted a full-time production schedule, with day and night shifts, giving employment to about 300 persons. This basis will be continued indefinitely.

Texas Textile Mills, Love Field, Dallas, Tex., are running on a full-time, 5½ day basis, giving employment to about 420 persons. No change in this schedule is now contemplated.

Wool

Newport (Me.) Mill, American Woolen Co., will soon show signs of industry again. Men are already at work getting it in shape for operations. An abatement in taxes has been secured for at least two years. Workers in the Ounegan Mill, at Old Town, Me., are more or less agitated for fear this Newport activity means the closing of their plant. The American Woolen Co. is negotiating for an abatement of taxes, however, with the authorities at Old Town.

Ames Worsted Co., Lowell, Mass., announced a 10% wage cut effective Nov. 23.

Massachusetts Mohair Plush Co., Lowell, Mass. Employees took a wage cut Monday. Wool sorters are required but two days a week at the present time.

Royal Worsted Mill, Lowell, Mass., put into effect a 10% wage cut last Monday.

U. S. Bunting Co., Lowell, Mass., has cut wages and salaries 10%. This policy affects the **Walsh Mill,** branch of the company, as well.

Talbot Mills, North Billerica, Mass., have announced a wage reduction of 10%, starting Nov. 23. About 400 workers will be affected.

Hamilton Woolen Co., Southbridge, Mass., shut down Nov. 21 and will be closed until Dec. 1, for annual inventory. The plant has been operating steadily. A night shift in the weaving shop has been maintained over a long period as well.

***Green River Woolen Mills, Inc.,** West Pittsfield, Mass., started operations in the recently acquired Tillotson property last week by starting two machines for experimental purposes. Modern machines have been installed and an all electric system. The first week in December will find the plant under way.

Crown Mills, Marcellus, New York, are installing a combined water filtration and zeolite water softening plant; it includes a concrete settling basin, automatic chemical feeders, pumping equipment, Hungerford mechanical sand filter and Inversand zeolite water softener. The object of the plant is to clarify and soften the highly contaminated Nine Mile Creek water which flows by the plant.

***Globe Mills, American Woolen Co.,** Utica, N. Y. A definite date for opening has not yet been set but it is tentatively scheduled for soon after Jan. 1. New machinery, including looms, has arrived and will be installed as soon as old machines are dismantled, which will go to other mills of the company. Samples of fabrics will be ready for the 1932 fall lines, according to Donald Lemieux, general manager.

***Middishade Co.,** Philadelphia, clothing manufacturer, has some vacant space to be utilized, so part of the equipment, 20 looms, of the **Beaver Worsted Co.,** Philadelphia, is being moved. Samuel D. Manuel, of the Beaver concern will be in charge of the looms in the Middishade plant. This is the second such "merger" culminated within the last two weeks. The consolidation of the **Goodimate Co.** with the **Integrity Mills** was reported in last week's TEXTILE WORLD.

Caro Cloth Corp., Carolina, R. I., has taken over portion of factory of S. P. Townsend Co., Glenwood Ave., Bloomfield, N. J., heretofore used for lawnmower manufacture, and will equip it for a new mill. The plant will be moved from Carolina to the new location.

Greenwich Mills, East Greenwich, R. I. The town of Warwick has granted an exemption from taxes for 10 years on the new plant of the Greenwich Mills, to be erected there. The plant will be used for the manufacture of woolens.

***Patons & Baldwins (Canada) Ltd.,** Toronto, Ont., report that their spinning mill in York Township is nearing completion. Construction work has ceased and the machinery is now being installed. The plant will open sometime in December.

Knit

Draper Bros. Co., Canton, Mass., is receiving bids for a power plant addition. The Allen Engineering Co., Boston, prepared the plans.

Universal Full-Fashioned Hosiery Co., Clifton, N. J. Harry A. Williams, of Paterson, N. J., has been appointed re-

**Indicates previous mention of project.*

ceiver on the application of Henry Peters and Henry Molzan, stockholders.

***Millville (N. J.) Hosiery Co.** has just closed bids for a proposed new one-story mill, 107x122 ft., reported to cost about $250,000, including machinery, and plans to begin superstructure at an early date.

Barnett Knitting Co., Fort Plain, N. Y., which bought the No. 2 mill of the Bailey Knitting Mills, for the manufacture of knitted outerwear, may lease the plant, including all merchandise and materials on hand, to a reputable manufacturer, for the period of two years. A resolution was adopted by the stockholders authorizing the making of the lease, and indications point to the early culmination of the deal. Arthur J. Barnett, president, was formerly in charge of sales for the Worcester (Mass.) Knitting Co. A part of the building is rented to the **Beauknit Knitting Co.,** Brooklyn, N. Y., makers of rayon cloth.

Pilot Hosiery Mills, Inc., Asheboro, N. C., have purchased the mill building in which it has been operating under lease for the two years of its existence. The mill is operating day and night and has maintained that schedule practically ever since it began manufacturing.

May Hosiery Co., Burlington, N. C., is installing 24 hosiery machines at the rate of one each week. This will bring the plant to 83% capacity production. Additional machines, to bring the mills to full capacity, will be added eventually.

***Charlotte (N. C.) Knitting Co.,** contrary to the report published in Nov. 14 TEXTILE WORLD, is still owner of the machinery which is under lease to the **Rock Hill (S. C.) Hosiery Co.** Walter Lambeth purchased only the building. This Charlotte branch of the Rock Hill company is being operated by Chas. L. Okey as president, who is also treasurer of the Rock Hill Hosiery Co.

Granite Falls, N. C. Work has been started on a hosiery mill which will be in operation about Jan. 1. W. E. Poovey and H. V. Bolick are partners in the new concern. The building will be two-story, 50x60 ft.

Greensboro (N. C.) Full-Fashioned Hosiery Mills, Inc., are running at a capacity rate at the present time with good prospects for the immediate future.

Mock-Judson-Voehringer Co., Greensboro, N. C., one of the largest knitting plants in the south, is running at a 100% rate and has lost but few days since it opened five years ago. This particular fall season has been, for them, one of the best.

Henry Brown & Sons Co., Philadelphia. Liquidation is proceeding under the direction of a representative of the creditors, and is offering the equipment for sale. The company has been knitting 39-gauge hose as its main item.

Lee Knitting Mills, Inc., Philadelphia, Pa., have been organized to operate a local hosiery mill, with capital of 50 shares of stock, no par value. M. A. Chamberlain, 5918 Spruce St., Philadelphia, is treasurer and representative. David Rosen, 4608 North Twelfth St., is one of the incorporators.

***Charles H. Bacon Co.,** Loudon, Tenn. The new plant will be one-story of brick construction, with a saw-tooth roof. The equipment to be sent from Camden, N. J., will include 28 full-fashioned machines.

Interwoven Stocking Co., Martinsburg, W. Va., has put its entire force numbering about 2,300 workers, back on full time, five and a half days a week, which schedule will be maintained until Christmas at least.

Regent Knitting Mills, St. Jerome, Que., Canada, whose head office is in Montreal where operations were formerly carried on, have applied for authorization to raise their dam on the North River. This construction work will include strengthening the structure rather than increasing the power. The company is holding its own financially and operations are being conducted at a profit.

**Indicates previous mention of project.*

Silk

William Skinner & Sons, Holyoke, Mass. New filter plant equipment is being installed for purifying the water before it enters their humidifying system.

Eljay Silk Co., Paterson, N. J., recently organized with a capital of 100 shares of stock, no par value, to operate a local mill, will be headed by Louis and Seymour Jacobs, both of Paterson.

***Kattermann & Mitchell Co.,** Paterson, N. J., has begun the shipment of machinery to its new plant at Laurens, S. C. Cox and Hodgens, Greenville, S. C., have been awarded the contract for repairs to the building formerly occupied by the **Pioneer Braid Corp.,** which will be taken over by the new silk weaving plant. Roy Martin, Anderson, S. C., has the contract for insulating, repairing and replacing the roof. Plans are to have the mill in operation by Jan. 1.

Rayon

Carolina Rayon Co., Burlington, N. C., has been sold to the National Management Corp., which indicates merely the transfer of the property to a holding company. A. M. Johnson, owner of the plant, has stated several times that he had no intention of reopening it. Whether this new move means industrial activity or not is a matter of conjecture.

Finishing

Palatine Dyeing Co., St. Johnsville, N. Y. Additional water softening equipment is being installed by Hungerford & Terry, Inc., Clayton, N. J.

Disco Dyeing Corp., Paterson, N. J., which purchased the Holsman Street mill of the **National Silk Dyeing Co.** last May, and which started operation of the dyeing departments about a month ago, has started production in the printing department. The Disco plant on East 19th St. has been totally dismantled.

Paul H. Lykens, Inc., Philadelphia, Pa., has been chartered with a capital of $10,000, to take over and expand the hosiery dyeing business heretofore conducted under name of **Paul H. Lykens,** 3819 Frankford Ave. Mr. Lykens is treasurer of the new company. Other incorporators include Henry G. Muller and Edward Arnick, Philadelphia.

Rock Hill (S. C.) Printing & Finishing Co. is operating on a day and night schedule.

Miscellaneous

Daytona Beach, Fla.—A. W. Chase Co., Red Rock Building, Atlanta, Ga., is planning the establishment of a new mattress manufacturing plant at Daytona Beach, reported to cost over $20,000, with equipment.

Widmer Embroidery Co., 3201 Natural Bridge Ave., St. Louis, Mo., has leased a factory at Twentieth and Obear Sts., and will establish a machine embroidery plant at that location. Structure will be remodeled and improved prior to occupancy.

Lamond & Robertson Co., Clifton, N. J., on application of **John S. Clement Co., Inc.,** Wilmington, Del., has been placed in the hands of a receiver. Geo. N. Berlet, raw silk dealer of Paterson, has been named temporary receiver. Lamond & Robertson Co., was established 33 years ago in Paterson, and was, for a long time, one of the leading industries there.

Fabrics Proofing Co., Englewood, N. J., recently organized with capital of 200 shares of stock, no par value, to operate a local textile finishing mill, will be represented by Schlesinger & Schlesinger, 17 East 42nd St., New York, attorneys. Donald M. Martin and Raymond L. North, Leonia, N. J., are the principal incorporators.

Adirondack Tinsel Mfg. Co., Hudson Falls, N. Y., has been incorporated to manufacture novelty tinsel and rayon ribbons, broadcloth, and other textile novelties, with actual paid in capital of $25,000. The company will buy cotton yarns, both dyed and natural 40s-2, 50s-2, 60s-2, and 100s-2; spun tinsels 7s, 10s, and 14s; flat lame tinsels, all colors, plain and embossed, 18 and 20; rayon in 150 and 300 deniers; visca, artificial straw, 2mm. only.

Carolina Absorbent Cotton Co., Charlotte, N. C., is running its enlarged plant, recently completed, on a capacity schedule, with full working force in all departments. No change is expected for some time. The output of the mill was recently doubled.

Philadelphia Wool & Hide Corp., wool pullers, Peltz St. and Schuylkill River, has leased property at 3rd and Lehigh Ave., Philadelphia, containing about 60,000 sq.ft. of floor space. After alterations they will move to this new location.

New Machinery *and* Processes

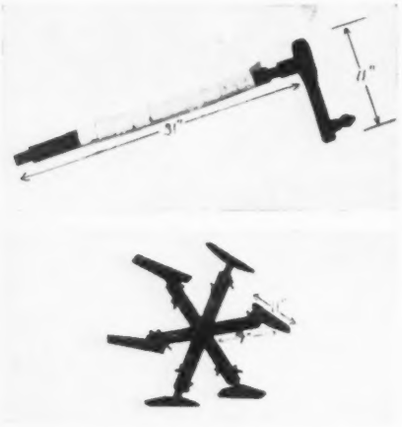
Unraveling Device

By D. K. Livingston and B. L. Hathorne
Tubize Chatillon Corp.

THE extreme tediousness of unraveling circular-knitted underwear fabric by hand, combined with the probability of erroneous denier determinations arising from the absorption of perspiration from the hands during the unraveling process, has caused us to design and put into operation the apparatus shown in the accompanying photographs.

This apparatus has proven of such value that we are publishing the details in the hope that it may prove to be of interest to those engaged in a similar line of work.

The fabric is first prepared for the machine by cutting it as closely as possible along one course and by unraveling by hand until all the ends have started to run freely. It is then placed on the swift, as shown in Fig. 1; and the yarns are threaded through the guides and attached to the cardboard cylinders. During the unraveling process the crank is turned slowly.



Winding drum and adjustable reel of unraveling device

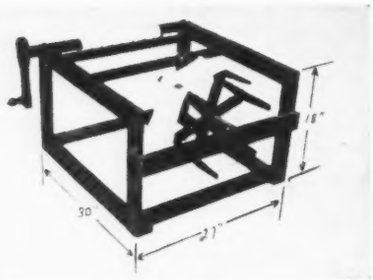


Fig. 1. Contrivance facilitates the unraveling of knitted fabrics for testing purposes

The tension applied to the crank arm by the operator causes the fabric to be continuously unraveled and rolled upon the cardboard cylinders.

In addition to providing a means of unraveling and collecting the individual threads of circular-knitted fabric, the machine provides a means of continuously observing the condition of the yarn as it leaves the fabric.

Filling-End Holder

FOR use in connection with bobbin-changing looms, Crompton & Knowles Loom Works, Worcester, Mass., have devised an ingenious filling-end holder, featuring simplicity of operation.

According to the manufacturer, the most important functions of any filling-end holder are the holding of the ends at transfer, elimination of end breakage at transfer due to sudden shock, keeping the ends uniformly taut, and operating in a simple manner. The company claims that their device meets all of these requirements satisfactorily.

The filling ends are held between two Bakelite rotors which are not positively driven but which receive their motion from the vibration of the loom. It will be seen from the accompanying illustration that a suspended weight or pendulum with a pawl is used to rotate a hardened-steel ratchet. The vibration of the loom causes the pendulum to oscillate; and this motion is transmitted to the rotors by means of the ratchet and pawl, causing the rotors to turn toward each other.

It is stated that when placing filling ends in the holder, care is unnecessary. They are merely dropped on the rotors and are taken up automatically. It is suggested that on fine yarns at least 12 to 18 in. of yarn should hang down under the rotors to insure successful operation.

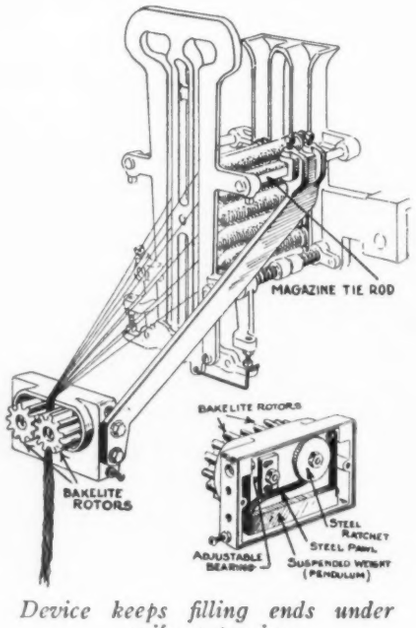
This contrivance is suitable for use on all automatic silk and Cotton King looms, and may be easily applied.

Operation Recorder

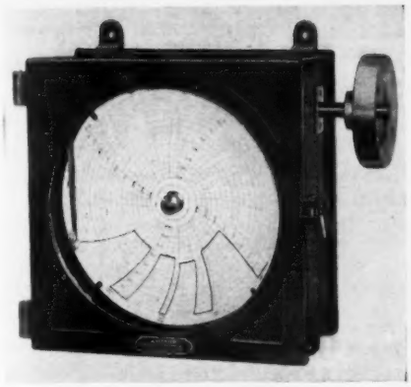
FOR the purpose of tracing and checking the basic causes for production losses Amthor Testing Instrument Co., Inc., 309 Johnson St., Brooklyn, N. Y., has developed an automatically controlled operation recorder. On an 8-in. circular chart it supplies a continuous picture of the entire operation of the machine on which it is installed.

The functions of the instrument are outlined by the manufacturer as follows: It shows the speed or rate of production at any time together with every change in speed; it shows starting and stopping times, slowdowns, non-productive periods, the time and duration of each, and the actual producing and idle time; and it supplies a complete, impartial record of facts essential to economical plant efficiency.

The recorder movement is based on the centrifugal principle, which is said to afford a powerful and uniform action. The motion of the governor is transmitted directly to the pen arm by means of connecting links, and direction of rotation has no effect upon the governor mechanism. The entire instrument movement is said to be comprised of a few simple parts which are independent of temperature change and



Device keeps filling ends under uniform tension



Instrument provides graphical picture of machine operation

magnetic influence. Either 12- or 24-hour records are obtainable.

It is stated that this instrument can be efficiently applied to practically any type of industrial plant machinery and that it may be connected to the machine by means of a belt, or flexible shaft, or direct coupling.

Steel Needle Valves

DEVELOPMENT of two new steel needle valves for high pressure gas or liquid service is announced by Lunkenheimer Co., Cincinnati, Ohio. These valves are designed to give accurate throttling and regulation at pressures up to 3,000 lb. at 150 deg. F. Heavy construction is employed, and pipe threads are made unusually long. These valves are expected to find application on orifice meters for measuring gas and on other high-pressure instrument lines.

Both valves are identical in design, with steel body, hub, stem, stuffing box nut and gland. One, however, has a bar-steel body and is Parkerized, while the other is made of stainless steel and is intended for use in localities where corrosive fumes are present in the atmosphere. Both patterns are made in $\frac{1}{8}$ in., $\frac{1}{4}$ in., $\frac{3}{8}$ in., and $\frac{1}{2}$ in. sizes.

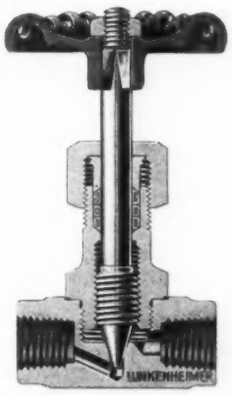
Hydrostatic Impregnator

ELECTRIC coils ordinarily requiring a treatment of 6 hrs. are said to be equally well processed in a period of 6 min. by means of the new centrifugal hydrostatic impregnator developed by Leon J. Barrett Co., Worcester, Mass.

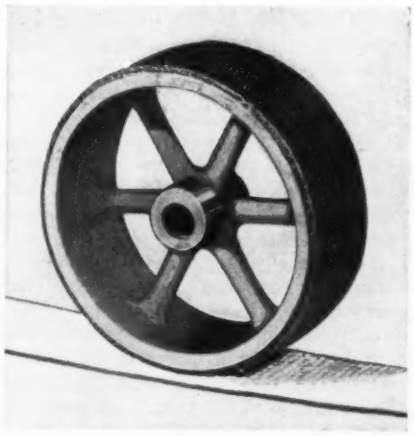
Articles to be impregnated are positioned and submerged in the impregnating fluid within the closed bowl or container, which is then rotated at a given speed. Centrifugal force acting radially from the axis of rotation presses the liquid against the wall of the container, thus building up and maintaining its maximum hydrostatic pressure at the largest diameter or at the solid rim, the pressure decreasing inwardly with reduction of diameter of the whirling mass toward the center. As impregnation progresses, any air therein will be literally squeezed out toward the low-pressure center opening.

Time of treatment is greatly reduced by new impregnator

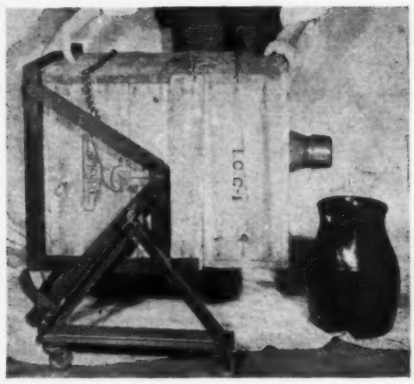
The entire rotating unit is positioned on a ball-and-socket universal in the base of the machine and is designed to sway under complete control about a vertical axis. This design confines pulsations to the container, focusing and diminishing vibrations to absorption through the ball in the base. It has been found that the amplitude of this oscillating movement, which is always in evidence, will cause the articles in the container to be subjected to a pulsating pressure due to the variance of hydrostatic pressure on the different diameters. Such pulsations give impetus to the penetrating effect of the liquid on the articles.



Needle valve designed for use on high-pressure instrument lines



Belt slippage reduced by improved pulley surface



Safety device for carboy handling

Carboy Tilter

THE large number of accidents, such as acid injuries occasioned by improper handling equipment, has stimulated the Schwenk Safety Device Corp., 27 Water St., New York, to develop an improved carboy tilter.

This device is said to enable one man to safely truck, drain, and otherwise handle carboys of liquids without undue exertion. The container is elevated into the tilter by levers, so that the operator is not required to lift the total weight (sometimes 200 lb.) of the carboy. The cradle wherein the box rests provides support on three sides and the bottom, so that there is no danger of the bottle dropping out. Full control in pouring is said to be had at all times regardless of the amount of liquid in the carboy. Every drop of liquid can be drained from the bottle.

The contrivance is said to have the approval of several safety organizations.

Pulley-Facing Material

DEVELOPMENT of a pulley-surface covering, called Gripwell, designed to improve the frictional contact between pulley and belt is announced by Gripwell Mfg. Co., 110 West 34th St., New York. The material has as its basis a treated canvas and is prepared for use by the application of a special compound the purpose of which is to cement it to the pulley and to produce a semi-elastic gripping surface.

In addition to the above properties, the manufacturer states that the compound has a preservative value and tends to keep the belt in a pliable condition. It is cited that the belt can be run satisfactorily in a slack condition and that the need for tighteners is eliminated.

Tests which are said to have been carried out under severe conditions indicate that belt slippage has been reduced to less than $\frac{1}{2}$ of 1%.

Questions . . . *and* Answers

Crow's-Feet in Rayon Crepe

Technical Editor:

We are enclosing herewith a sample of rayon crepe. You will note, upon examination, that the fabric is full of cracks or crow's-feet. We have been unable to get a definite answer as to the cause of this defect. Could you help us out in this matter? (7725)

We are assuming that the cloth sent with the inquiry is intended for a rayon flat crepe. No method of weaving or preparing the yarns will prevent the open appearance of the cloth after finishing. We figure the gray-cloth count to be around 92 x 52. This is a rather low cloth count for a rayon flat crepe; and to prevent the open or cracked appearance of the cloth after finishing, the greatest care should be taken in the finishing processes. Because of the low warp count, it is an easy matter for the crepe-twisted filling to cause too great a displacement of the rayon warp if the finisher is not particularly careful. If a flat-crepe finish is desired, we advise the use of a crepe filling with much less twist.

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Bleaching Worsted Yarn

Technical Editor:

We are now attempting the bleaching of ¼-, ⅜-, and ½-blood worsted yarns for the knitting trade. We have Klauder-Weldon dyeing machines.

The yarn as processed at the present time seems lifeless, is not lofty, and the shades do not come up bright. We attribute this to the scouring. We use 1 lb. of chip soap and 2 lb. of soda ash to 100 lb. of yarn, scouring for about 1 hr. in cold water brought to a temperature of about 110° F. through the addition of steam. We have no hot water to start with. Can you recommend a simple and efficacious scouring process which will leave the yarn clean and soft and permit lofty dyeing of bright shades? Do you recommend ammonia for scouring?

Furthermore, what is your opinion as to the length of time a color is to boil in the kettle? At present we boil for more than 3 hr., but believe that this damages the yarn, and that scouring and dyeing should take no longer than 2 hr.

We attempted to bleach by the potassium permanganate method outlined in your Sept. 19 issue, but this process left yellow streaks on the yarn. The yarn was scoured in warm water and bleached in cold water. The yarn also had a strong sulfur odor which we could not eliminate. How can we make the yarn whiter, and how can we eliminate the odor and streaks? What is the proper method of immersion? Are the skeins tied into heads and just laid in the vats, or are they immersed on sticks? Can this process be used on the Klauder-Weldon machines, and the machine operated in the same manner as dyeing a batch of yarn? (7727)

You are correct in assuming that the operations of scouring and dyeing should not take over 2 or 2½ hr. at the most. The actual scouring process should not take over 45 min. and the subsequent rinsing not over 15 min. It is not surprising that the yarns are not lofty and that they lack life and luster when you consider that they are boiled 3 hr. in the dyebath. The dyer should work out his dye recipes so that he will be able to obtain the correct shade without repeated additions of dyestuff.

Regarding your scour, the addition of 1 to 2% of ammonia should help, and certainly will do no harm. We also suggest that you increase the soap to 3 lb. per 100 lb. of stock. Scour at 120° F. for 45 min. Rinse in warm water until free of the soap. The yarn is now ready for dyeing or bleaching.

It is noted that you did not obtain satisfactory results with the permanganate process of bleaching. This was probably due to insufficient scouring, as the yarn must be free of grease and oil if it is to absorb the bleaching agent. Insufficient scouring may cause the streaks of which you complain. Also, any soap precipitated on the fiber by the use of hard water will resist the action of the permanganate. In your next trial make certain that the yarn is thoroughly scoured; and if it then does not give you a satisfactory white, repeat the treatment, saving the old bath for this purpose. For removing the sulfur odor from the yarn, increase the amount of acid in the acid bath or use hydrogen peroxide in place of the bisulfite of soda. For immersion you may either use the sticks, or the yarn may be tied loosely into heads. The Klauder-Weldon machine may be used for this process provided the yarn does not come in direct contact with any metal.

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Setting Twist in Silk

Technical Editor:

Kindly advise what you consider the correct pressure to be maintained at the steam box for setting 20-turn tram and 36/32-turn grenadine. We should also like to know for what length of time these yarns should be subjected to steaming to set the twist. (7717)

The steam pressure and time required to set the twist on 20-turn tram and 36/32-turn grenadine depends on the type of steam box, the size of boiler supplying the steam, exposure of steam-supply pipes to box, the number of threads, and the wind of take-up bobbin.

With the vacuum type of steamer, from 10 to 20 lb. pressure is used. The steam supply should be ample to keep the pressure constant during steaming. The pipes should be properly insulated to prevent condensation and avoid exposure of the silk to wet steam and excessive condensation. With some boxes from 40 to 100 lb. is used. When high-pressure steam is employed, care must be taken that the supply to the box is not too great, as this causes the box to get too hot, melts the sericin, and thus causes hot-water marks, particularly when there is excessive condensation.

The time depends upon the thread, twist, and character of silk and thread. A 20-turn tram requires more steaming than the grenadine, as the latter is a balanced twist and does not tend to untwist as readily as 20-turn tram. A five-thread 20-turn tends to untwist more than a three-thread of the same twist; and therefore requires more steaming. We suggest that you steam for 5 min. and cool for 5 min. If the thread is not set properly on the inside of bobbin, steam and cool another 5 min., and so on until the desired setting is secured. The bobbin should have an open wind; otherwise the steam cannot penetrate the bobbin. Likewise if the bobbin is wound too tightly, good penetration is difficult.

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No-Run Powder for Hosiery

Technical Editor:

I understand that there is a commercial product, in the form of a powder, designed to prevent the running of hosiery. I shall appreciate any information as to the constituents of this material and the theory of its operation. Do you know the name of the manufacturer of such a product, known as "No-Run Powder"? (7711)

There are several of these products on the market. One in particular is a

mixture of albumen and powdered glucose. It is dissolved in water and is added to the last rinse bath or the finishing bath. The theory is that the adhesive nature of the albumen will prevent the threads from pulling out and running, and that the powdered glucose will offset the harshness and stiffness caused by the albumen.

Some department stores sell compounds which, as near as we can find out, are mixtures of soap and metasilicate of soda. Just how these will prevent runs we are not aware, unless they soften the silk to such an extent that it becomes one sticky mass and cannot run.

Other products are mixtures of glue, gelatin, etc. These bind the filaments of the stocking together so that they are not easily broken or pulled apart. Their chief virtue is not in preventing runs, but in keeping the stockings from becoming scratched and the threads pulled when the goods are being handled in the finishing room.

We do not know the name of the manufacturer of the particular compound called "No-Run Powder."

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Duplicating Sample of Frill Yarn

Technical Editor:

We enclose herewith two samples of frill yarn composed of worsted and rayon. The sample marked (No. 1), original, is the sample submitted to us for duplication. The other is a sample of the lot we made, which has been rejected. There is a difference in the shade, but this has no bearing on the rejection. So far as we can determine, our lot is the same in every particular; but the customer claims it does not knit the same and that he cannot use it. Will you kindly advise us what is the cause of the difference, if any? (7719)

Examination of 20 in. of the two samples of frill yarn disclosed the following data:

Sample No. 1. Worsted core 6¼ turns, 22¼ in. long; two-end rayon core, no twist, 22 in. long; three-end rayon wrapper, no twist, 30 in. long; rayon wrapper and two-end core twisted 20½ turns, 21½ in. long.

Sample No. 2. Worsted core 9¾ turns, 22½ in. long; two-end rayon core, no twist, 22 in. long; three-end rayon wrapper, no twist, 30½ in. long; rayon wrapper and two-end core twisted 20½ turns, 21¾ in. long.

The direction of the twist and the weight (yd. per lb.) are the same in 1 and 2. The original, No. 1, has a slightly harsher feel than No. 2, probably due to the three-end rayon wrapper being shorter in 1 than in 2 and being wrapped tighter around the two-end core, which is the same in both samples.

In the final twist, the worsted core is longer in 1 than in 2, and the rayon is longer in 2 than in 1. Undoubtedly this is where the weight is balanced out; but due to the higher twist and shorter length of the worsted in 2, the wrapper stands out, thus causing the finished yarn to be larger in diameter than in 1.

We are of the opinion that when knitted, No. 2 will give a slightly softer handle and more lofty appearance than the harsher original, the extent depending entirely on the construction of the fabric.

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Oil Spots on Denim

Technical Editor:

I am enclosing two samples of indigo-dyed goods. Sample No. 1 shows a series of dark spots and No. 2 has a streak of the same nature. Will you kindly inform me what is causing the spots and streaks? (7724)

We have examined the spots and stains in the piece of indigo-dyed goods marked No. 1. These spots are evenly distributed throughout the goods, and have the appearance of thumb marks. There is a slight amount of oily substance present in the goods, but the stains cannot be completely removed by repeated refluxing in a Soxhlet extraction apparatus. The amount of oily matter is so small that it cannot be determined whether it contains any saponifiable matter. However, it appears to be all mineral oil, probably a lubricating oil, mixed with metallic particles from the bearings. A test of the metallic substance remaining in the goods shows it to be iron. These stains were acquired by the goods after they were woven. They do not strike through to the back, although the extraction process with ether has had a tendency to drive some of the oil through the goods.

In sample No. 2, where the dark streak is about 1 in. wide and runs the entire length of the goods, we found upon subjecting the fabric to the ether extraction that the dark streak was completely removed, as you will see from the enclosed sample. Under the microscope, the dark streak appeared to be a portion of the warp which was dyed more heavily than other parts, but the ether extraction has removed the dark appearance.

The oil present is small in amount. It is a heavy, yellow-colored oil which does not contain any saponifiable matter.

We believe that the streak is probably due to lubricating oil dripping from some bearing onto the warp while it is in the loom. We suggest that you carefully examine the harness pulleys, possibly placing a piece of clean white cloth beneath them to see what drips out.

Absence of metallic particles in the warp stains found in sample No. 2 is practically conclusive proof that the oil getting onto the goods from the bearing was fresh. Otherwise the stains would be darker, and metallic particles would be present which could not be removed by extraction with ether.

Inquiries should give the fullest information possible; and if damaged material is involved, a sample should be sent. We give no consideration to anonymous inquiries and do not undertake routine analysis of yarn or fabric, or investigation involving unusual expense.

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Finishing Lace

Technical Editor:

We are trying to duplicate a piece of lace that has been cired, but we cannot seem to obtain satisfactory results. Can you inform us what machinery and material would be necessary in order to get as fine a result as shown in the enclosed swatch. (7712)

It is not possible to advise you what is wrong with the lace you have been finishing, for there was no sample of it enclosed. As you know, the high luster so well brought out in the samples submitted was produced by the use of a hot steam roller pressing down on the face of the lace. This is backed up by a wooden roller, and the whole is done on the tenter frame. To finish properly, the yarn used in the manufacture of the lace must not be of too tight a twist. In fact, it must be just soft enough to lend itself to a proper "ciring" or pressing. Perhaps the laces you have been working on have been made from a yarn that is too tightly twisted.

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Jersey-Cloth Manufacture

Technical Editor:

Will you kindly tell us what type and size of knitting machine is used in the manufacture of the enclosed sample of jersey cloth? What size of yarn is used, and what kind of dyeing machines are employed? We should like to know also if there is any fulling process, what kind of a dryer is employed, and if there is any particular finishing process for setting the cloth. This cloth is sold tubular, 27 in. wide minimum, or 54 in. when cut. (7722)

The sample of jersey cloth submitted is undoubtedly 28-gage material and can be made on any standard circular machine of this size. Either a latch- or spring-needle machine can be used, opinions varying on the relative merits of each. After measuring and weighing lengths of the yarn in the sample, calculations showed it to be single 27.48s worsted, probably 1/28s.

An open dye tub would adequately take care of dyeing this material so long as it is to be dyed in rolls. No fulling process is used, but the cloth gets a slight matted effect from the dyeing and washing processes. The vertical dryer is the type customarily used, as this dries, spreads, and sets the cloth at one time.

We would suggest the use of a 30-in. cylinder in knitting to get the desired width of 27 in. finished.

Durene

NATURAL ▾ ▾
BLEACHED ▾ ▾
AND COLORED
YARNS

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418 Franklin St.
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261 Fifth Ave.
NEW YORK

52 Chauncy St.
BOSTON, MASS.

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◆ *Survey of Fabric, Knit Goods, Yarn and Raw Material Markets* ◆

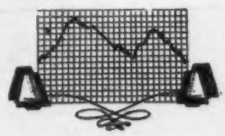
TEXTILE WORLD ANALYST

Reasonable Hope for Recovery Next Spring

By Dr. L. H. Haney

SUMMARY

As yet the declining barometers outnumber the indications of improvement, but reasonable hopes of recovery next spring have some basis. The textile manufacturing industries are likely to be reactionary during the next month or two.



ON THE favorable side of the business situation, one can say that the weekly indexes of commodity prices continue to indicate considerable stability. The recovery in grain prices, a considerable part of which has been retained, promises to improve somewhat the condition of many farmers. There has been moreover, a return to greater confidence in our monetary system and bank failures have become less numerous.

We find in October that a small gain in railway freight traffic occurred, due allowance being made for seasonal variation, and as industrial production averaged lower, it may be concluded that a better balance existed between total production and total shipments. Moreover, stocks of merchandise in the hands of dealers and consumers are doubtless quite low. Department store sales in October averaged a little higher than in September.

One hopefully inclined may see certain signs which often indicate the existence of near-bottom levels in industry. For example, merchandise imports have been moving irregularly sidewise for about six months; an index of automobile production has fallen below its average relationship with an index of building activity; and factory payrolls have fallen far below their average relation to factory employment, indicating that the adjustment in wage rates and working hours has gone very far.

Unfavorable Barometers

On the unfavorable side of the situation, however, we continue to find a majority of the significant business barometers. The monthly indexes of commodity prices prepared by the Bureau of Labor Statistics and Bradstreet have touched new low levels, and raw material markets continue unsettled.

Factory employment and payrolls in October fell unseasonably to the lowest points reached in the recession.

Our foreign trade showed a continued downward trend in October, with exports at a new low level.

Most available indexes of unfilled orders have declined further. The unfilled orders of the Steel Corporation indicate that new business fell off in October and both machine tool orders and orders for finished cloth declined more than seasonally. The automobile and building trades continue very backward, with building permits at a new low for the recession.

The financial situation is on the whole unsatisfactory, and is characterized by heavy "investments" carried by banks, a high ratio of loans and investments to total deposits, a continued decline in net demand deposits, and numerous bank failures.

Finally, there is considerable uncertainty as a result of the possibility that inflation in bank credit may develop next year in connection with the extension of large amounts of government credit. It is probable that the new Congress will be a heavy spender and it may make large loans to farmers and other depressed industrial groups.

Financial Conditions a Drawback

Probably the greatest single drawback to business recovery now lies in the financial situation, not only international but in this country. The setting up of various credit pools tells the story. It is emphasized by weakness in the bond market, declining bank deposits, and the still numerous bank failures. Deflation in credit and liquidation in securities and real estate are evidently not sufficiently complete to furnish a very sound basis for expansion and, therefore, easy money and various artificial stimuli have failed to become effective; and neither the cheapness of certain commodities nor the high yield of certain good bonds attracts buying.

The long and short of the matter is that there is too much debt and too much uncertainty about the repayment of loans or the value of investments, to allow any surplus buying power to be effective. Moreover, part of the public and private debts has been incurred for the purpose of carrying large surplus stocks of various raw materials, which stocks continue to be a load on the commodity markets. Some commodities, being well below cost of production by efficient concerns, obviously might be bought for long-pull investment. The general financial condition, however, together with the large supplies held by non-commercial agencies, militate against such buying.

To this writer, the great needs of the present situation appear to be (1) settlement of debts, (2) realization on speculative commitments and investments, and (3) recapitalization. In order to restore confidence and release buying power it is important that governments, corporations, and individuals in this country and in others should be able to know where they stand. We need to have our solvency definitely determined and get a definite and workable basis for making plans.

It will be noted that the settlement of debts may be effected not only by paying them off in full, but by leniency on the part of the creditor in scaling down the amount or by partial renewals, refunding, etc. Whatever the arrangement, however, it is vital that we get out of debt.

The Recent Rally and Reaction

The history of the last month or six weeks can be summed up briefly as follows: There was a spurt in a number of markets based on the anticipation of early inflation, this taking the form chiefly of short covering attended by speculative operations. At this writing, however, the inevitable reaction has

The analysis and forecast by Dr. Lewis H. Haney, Director, New York University, Business Research Bureau, which regularly appears on this page, considers various branches of the textile industry from week to week. The conclusions reached in the Analyst are mostly forecasts and generally apply to a time two or three months ahead. The Analyst is based on statistical data and does not reflect temporary trade sentiment.

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come with the realization that inflation is not likely to become an effective factor until after Congress acts.

Meanwhile, though the process is painful, liquidation and curtailment continue. Further recession marked October. There is as yet no definite indication that business activity will not be still lower in November. The normal seasonal trend of business is now downward in most basic industries and in transportation. However, possibly the first indication of stabilization in business and the beginning of recovery will come in the shape of a less-than-seasonal decline. Should any declines in business during November and December be less than the normal seasonal variation, our hopes for positive recovery in the spring will be increased. As one strained "situation" after another is cleaned out, prospects for the beginning of a natural recovery by next spring are improved.

The textile industries are naturally handicapped by the general business situation, as well as by the fact that textile raw materials are among the more burdensome of our stocks of commodities. Moreover, our theory that the peak of a two-year textile cycle was reached last summer, seems to be borne out by recent trends, and that suggests further recession.

Cotton Mill Stocks at New Low

The estimated net earnings of the average cotton manufacturer declined during October. The trend has been downward since April, due chiefly to a decline in the earnings margin. The latter is at a low level and one which is usually accompanied by declining prices of cotton mill stocks.

The current replacement margins for cotton cloth and gray goods fell to new low levels in October. Spinners' margins were slightly improved, but are far from being satisfactory. The difference is that supply and demand are not in good balance throughout the cotton manufacturing industry as a whole. Statistics relating to the position of cotton goods indicate that there has been a tendency for stocks to increase during the past few months. Demand conditions are poor and curtailment of production seems to be inevitable.

Cotton mill stock prices have reacted to this situation and have fallen to new lows in October. No sustained advance is indicated so long as replacement margins are low and declining.

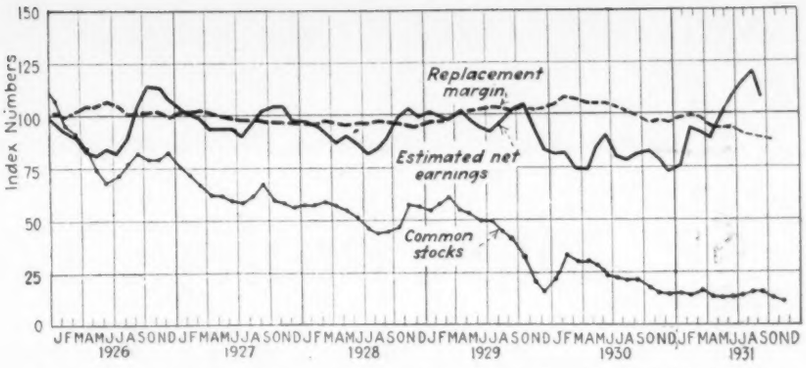
Index Numbers
150
125
100
75
50
25
0
Replacement margin
Estimated net earnings
Common stocks
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1926
1927
1928
1929
1930
1931

Fig. 1. COTTON MILL EARNINGS AND SECURITY PRICES—Net Earnings in Cotton Cloth Industry—Computed from the cost of raw material, labor, fuel, etc., the price of finished goods and the volume of production (New York University, Bureau of Business Research). New Bedford Mill Stocks—Average price 25 New Bedford cotton mill stocks (New Bedford Standard). Southern Mill Stocks—Average price 25 Southern cotton mill stocks (R. S. Dickson & Co.).

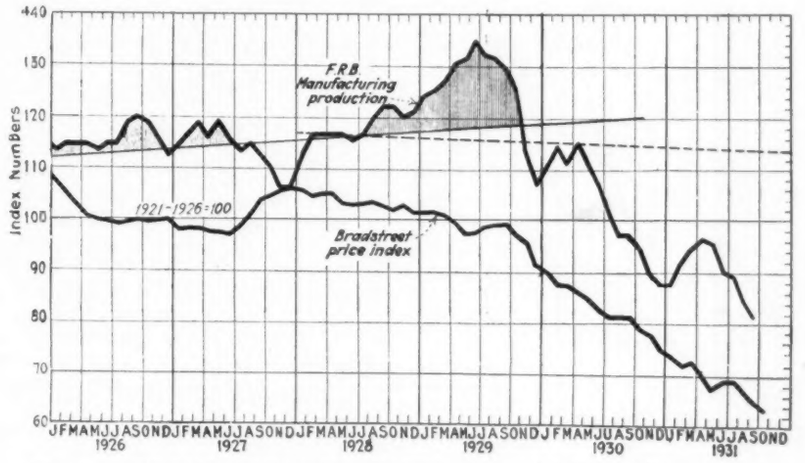
Index Numbers
140
130
120
110
100
90
80
70
60
F.R.B. Manufacturing production
1921-1926=100
Bradstreet price index
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1926
1927
1928
1929
1930
1931

Fig. 2. PRODUCTION AND PRICES—Industrial Production—Average daily, adjusted for seasonal variation, Federal Reserve Board; Commodity Price Index—End of month, Bradstreet's Journal. Average 1921-1926 = 100 for both indexes.

Wool Mills Earn Less

The estimated net earnings of the average wool-goods manufacturer also declined in September. This is the first decline since April, and is contrary to the usual seasonal trend. Following a steady rise from April through July, this change in the trend of earnings probably indicates a significant turn toward lower levels. Both the volume of production and the estimated margin of profit reached their maximum in August. The earnings margin then declined in September and October. Net earnings were, therefore, probably less in October. Volume figures are not yet available, but employment in the woolen and worsted goods industry fell off sharply.

The current replacement margin, which does not allow for the lags inherent in the manufacturing process, has fallen steadily since February, and by October was the narrowest in recent years. The persistent cutting of wool cloth prices has apparently caused a larger decline in the price per pound of finished goods than of raw wool. The rise in raw wool during the Summer merely aggravated this condition, and the decline in October was insufficient to offset the drop in the price of goods.

A sustained move in the replacement-margin index tends to be followed by a somewhat similar move in the index of the margins actually earned. This is, perhaps, the fundamental explanation of the meager response of wool-mill stock prices to the unusual activity of the industry in the second and third quarters of 1931. There was a small increase in stock prices which began in May and ended in July and August, but the wool mill common stocks failed to reach their previous peak of March, 1931. Earnings and stock prices will probably continue moderately downward for the balance of the year.

Market Briefs

Cotton: ***Steadies on lower levels with no one pushing the market.***

Cotton Yarns: ***Stagnation continues with prices nominal.***

Cotton Goods: ***Some lines steadier, others still demoralized; trade quiet.***

Wool: ***Steadier tone due to better buying.***

Worsted Yarns: ***Quiet, but spinners are more hopeful.***

Woolen Goods: ***Weather seriously delays sales.***

Silk: ***Prices steadier; better tone.***

Silk Yarns: ***Increased call for spun silk; thrown silk quiet.***

Silk Goods: ***Trend to rough goods in spring fabric demand.***

Rayon: ***Steady movement to both weavers and knitters.***

Knit Goods: ***Some mills oversold on Christmas mesh hosiery; spring underwear improves. Swimsuit demand better, but winter sweaters are less active.***

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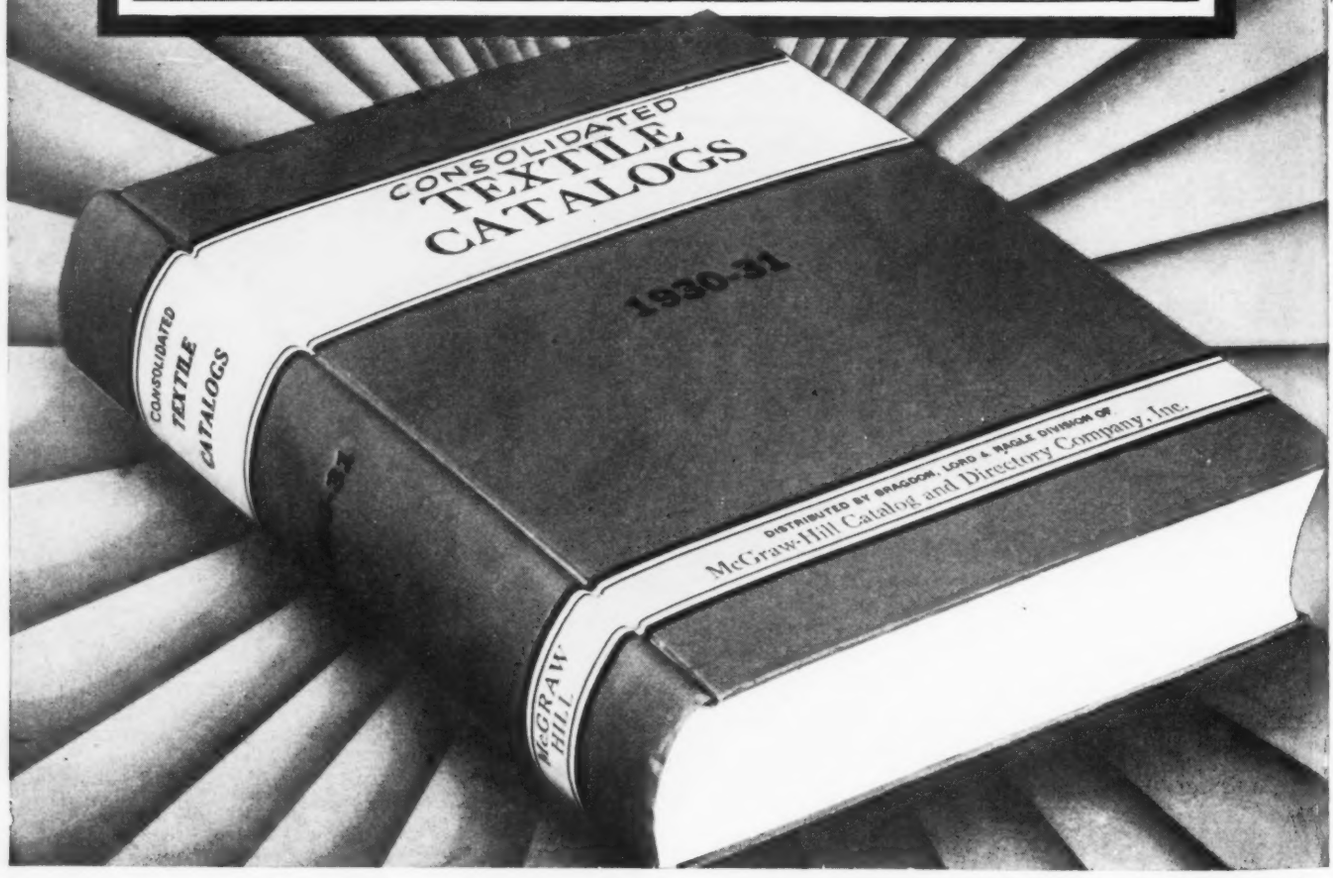


YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

◆Cotton Yarns Lack Active Demand

THERE is little demand for cotton yarns this week. This condition, together with continued weakness in cotton, has resulted in a wider display of weakness in yarn prices. Not all spinners have shown a willingness to shade quotations, but here and there those spinners who are looking for business to fill out have accepted lower figures. The actual volume of business done, however, is so limited that it really is not sufficient to establish these lower prices, so that the market is considered on a nominal basis.

Dealers point out the thin margin existing between raw material and yarn prices. Cotton is still about ½c. above the previous low, but yarn prices are virtually at the low level for the movement. Manufacturers of goods have not been getting any volume of business which would tend to cause them to look for further yarn stocks. If business comes, as eventually it is expected to develop, the call for deliveries is expected to put an edge on the market which it has really lacked to date. The lack of any real business with manufacturers is regarded as the main factor in delaying any interest at what are considered bargain prices. There is continued discussion of the effects of the unseasonable weather which has marked this fall, and is regarded as a big element in the failure of goods to move generally.

Carded weaving yarns find little activity. These yarns have been all along the dull feature of the market, with only occasional spurts in certain lines when spasmodic business developed. Such counts as 30s-2 warps, usually an active yarn, have been dull for some time. Spinners who held out for 21c. for average yarns, are willing to take 20c. for nearby deliveries, but ask 20½ to 21c. for later shipments; while 20s-2 warps, the one active number this fall, is now quiet at 16½ to 17c. Men's wear and dress goods mills were one of the scources of inquiry for this yarn for a time, but at present this interest is lacking.

Carded knitting yarns were for some time the active factor in the market, but trading today is limited and scattered. Manufacturers of cheap carded hosiery in Pennsylvania, and underwear manufacturers were taking good quantities of these yarns, but now the call is much restricted. Prices run from 13½ to 14c. basis 10s, with 20s at 16½c.

Combed yarns fail to show any great activity and selling prices also show more or less disposition to weaken, although there is not enough business to reveal actual values, with 12s single around 20c., and 18s at 21 to 21½c. Sales are reported in ply yarns at values somewhat below prevailing quotations, but these have been far from general. Mercerized yarns are reported to have been booked in rather fair volume during the last week or so, with prices in many instances said to be below the levels indicated on page 82. Keen competition for business is playing a part in this business.

◆Cotton Holds Steady After Reaction

THE reactionary trend which developed in the cotton market toward the middle of this month carried prices off to 6.10 for January contracts at the beginning of this week, making a decline of 81 points from the high price touched right after the publication of the last Government crop report and of 96 points from the high level reached on the advance toward the end of October. It may be recalled in this connection that after selling up to 7.06 toward the end of last month on the optimistic view of general business prospects and expectations of inflation in commodity values generally, January declined to 6.48 before the publication of the Government crop report and immediately the increase in the November crop indication failed to stimulate additional selling, rallied to 6.91 on "Bureau day." Since then there has been some moderating of confidence in the inflation theory and prices have sagged off day after day under moderate southern selling and liquidation of old long accounts. The failure of other markets such as grain, stocks and silver to hold their recent advances contributed to this decline, but the market encountered scale-down buying by the trade or commission houses nearly every point on the way down, and early this week showed indications of an improved technical position.

Liquidation of December contracts in preparation for Tuesday's notices probably had rather an unsettling effect on the market, but the interest in that position was evidently reduced to small proportions as the notices issued amounted to only 12,300 bales and the December discount narrowed after they were out of the way. Southern advices have indicated practically no change in the spot situation. The high basis is said to have checked demand from some quarters, but its maintenance has suggested no excess pressure of offerings, and the holding movement has shown no sign of weakening. Perhaps it may be strengthened by the results of the conference held at Jackson, Miss., on Tuesday, at which representatives from

(Continued on page 77)

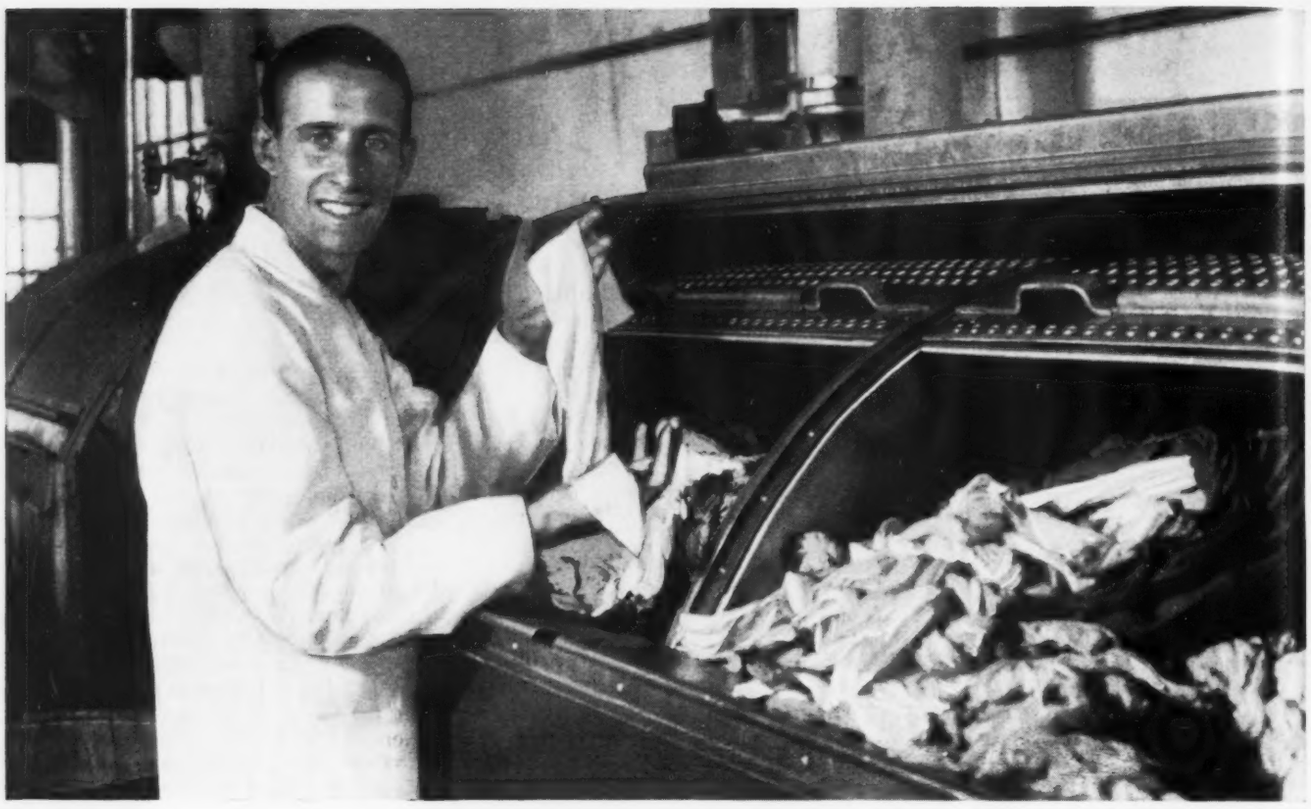
◆Worsted Yarns Still Marking Time

MARKING time continues to feature the worsted yarn market as demand for yarns is still lagging. Dealers report the situation decidedly discouraging. There is some effort to secure concessions by buyers who are looking for an opportunity to pick up bargains, although most salesmen say they find little chance to sell much yarn, even if they would be willing to accept some of the low offers named. There is appreciation of the futility of cutting prices when manufacturers are not interested in buying. Yarn prices are generally nothing more than nominal.

There is one interesting feature which has not escaped the notice of the trade. That is the continued evidence of a decided undercurrent of firmness in the wool market. Good volumes of wool are reported selling, especially in medium grades, with pulled combing wools also active at firmer values. In view of the lack of any volume of business with spinners or weavers, this activity certainly would indicate a good confidence in the raw material.

The weather is as usual coming in for considerable blame as the deterrent factor today in business. Recent temperatures have made summer suits almost a burden, to say nothing of a heavy overcoat, and it can hardly be expected that any desire to purchase heavier apparel will develop before such is actually needed. Knitting mills have found their business slowing up, with few indications of improvement in sight. Therefore, most manufacturers are turning their attention to next season's requirements and sampling yarns for those lines, using practically the same counts as before. Bathing suits have found some business in a limited way, but many manufacturers have asserted they are not going to send their salesmen out on the road for another two weeks. Prices, as before stated, are practically nominal with 1-18s in good quarterblood grade anywhere from 75 to 80c. Several factors are offering a single 18s high quality at around $1.15, although others are not able to meet this figure on a zephyr grade.

No change worthy of mention is reported in weaving yarns. Those manufacturers who have orders for goods have been taking in their yarns in a limited way but new business is scattered and confined to small lots. Salesmen report the situation rather unsatisfactory inasmuch as they are faced with keen competition for the limited business available. With the end of the year approaching, naturally manufacturers are anxious to restrict their inventories as much as possible, and therefore are confining their com-



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YARNS AND RAW MATERIALS

TEXTILE WORLD ANALYST

mitments to those yarns which are actually needed. Price cutting on the part of clothing retailers is noted with considerable interest, with the hope that it will prove productive in moving goods in sizeable volume and thus make for a better demand for yarn.

◆Wool Position Gains Strength

THE wool trade is advancing slowly and steadily to a better selling position and is under the impression that a strong raw material market will do much to bring relief from the uncertainty seen in tops, yarns and goods. The return of 70% of the workers in the Lawrence mill section is another welcome development and already has resulted in some buying from that source. Both in Boston and Philadelphia the wool trade is becoming publicity minded and a special committee may be formed to carry on the work of making the general public more "wool minded." By the turn of the year a much more active wool market is expected and in the meantime prices are strong.

The depression in raw wool circles has apparently reached the limit, certainly so far as sentiment is concerned. During the week larger buying by mills at firm to higher prices confirms trade opinion that wool is on a safer investment basis than for several years.

Larger mill buying of territory wools has been a feature of the week. The strictly staple fine wool continues relatively neglected with original bag wools moving more freely. It is no longer possible to buy Colorado and New Mexico types below 50c. and recent sales of good wool have been made as high as 53c. Montana and Wyoming wools are up for the week, mills paying 55c.

Texas combing wools have shared in the larger interest but the shorter wools are semi-stagnant. Holders of the eight-months and fall wools are confident of their position, realizing that sooner or later the low prices will attract attention from woolen mills.

Business in pulled wools has been much more active. Some of the big packers are said to have made a good clearance of B lambs to a prominent mill. Clearance of pulled wool has been good this year with available stocks smaller than a year ago. Another flurry in mill buying of scoured wools has developed quite unexpectedly and it is thought that mills using these types, realizing that prices are low and stocks limited, have taken time by the forelock, although it is not unlikely that additional cloth orders have furnished the real stimulus.

◆Wool Substitutes Low and Slow

THE demand for substitutes during the week has been irregular, but the tone of the several markets is more cheerful and the low prices at which materials are offered are counted upon to bring about much larger manufacturing interest when real cold weather influences sentiment in the goods market. Prices on graded rags are evidently grounding on bottom. With the market on the lowest basis for years, anything but a conservative optimism as to the future would be entirely without justification.

There is not enough business arriving for wool wastes to stiffen the market, but indications of larger woolen mill purchasing are beginning to appear and the recent increased interest in scoured wools may indicate a better market for wastes in the near future. Prices are at the low points of the year, dealers hoping that the turnabout face of the wool market during the last week or ten days will shortly be reflected in wastes.

Reduction in noil output during the last six or seven weeks is having some influence in stiffening prices but the actual demand is still too slow to bring about any rise in values. Demand for the shorter virgin wool fibers which is usually met to a considerable degree by noils has made further advance during the week. The short Texas fall wools which are quoted on a 38 to 42c. basis have been moving more freely and this is encouraging to holders of fine noils who believe that a turn in the market is close at hand. Fine noils have been depressed and the best Australian can be bought as low as 35c.

◆Buyers See Rayon Prices More Stable

WEAVERS continue to place moderate spot orders for rayon yarn and while knitters are less active than hitherto there is still a good demand from that division. There is a growing confidence among both buyers and sellers, thanks to the tendency of buyers to accept prices "as is." While rumors prevail regarding the possibility of a January change, the consuming industries do not take these seriously.

Rayon producers approach the end of the year in mixed mood; 1931 piled up extraordinary volume, but profits left much to be desired. The current turn toward confidence is one of the best features of the year, as buyers now are less gossipy about prices, less disposed to push levels downward or to look for revisions, than they have been in a good while. The recent price revision, especially the advance in 150s has instilled a new feeling in the market; not a few observers regard rayon as definitely at a turning-point, these factors claiming that any further price change, if one should develop, would be upward.

◆Active Sampling of Spun Silk Yarns

BROADSILK manufacturers are confining their spun silk orders to sample business and spinners are still waiting for their long-expected spring demand to develop. Market tone continues good and prices are steady; low stocks in spinners' hands are a healthy element. Spring movement of spun yarns is backward; sales being below those of last November; prospects point to a congestion of buying when weavers finally do cover, and spinners may have difficulty in filling contracts. The new fabric lines include an important range of spun yarn goods, however, and active business is looked for eventually.

Thrown yarn is quiet except for crepes in which the broadsilk trade shows some interest. Other Japanese yarns are dull. Hosiery mills which bought steadily through October, now have slowed up. Market tone is hesitant and outlook is uncertain.

◆Raw Silk Shows Trend to Steadiness

THERE is an increasing trend to steadiness in the raw silk market. Price variation during the last week has been restricted to two or three of the 13/15s as against the general fluctuations which prevailed throughout recent months. There are no indications as yet that this evenness will be maintained, as broadsilk manufacturers are buying very lightly, and some firms continue their re-selling of silk previously acquired. The re-selling is less extensive, however, and it has not had any softening effect on the primary market.

Importers see the outlook as somewhat improved. Manufacturers talk more confidently though so far that confidence is not reflected in any pickup of futures. Thanksgiving week is normally quiet, and raw silk dealers expect the turn of the month to bring increased coverage; broadsilk mills have only the minimum stock of silks on hand and any real production of spring fabrics will compel them to buy actively, it is believed. Hosiery mills continue spirited production but Christmas sales have not been so good, and they are cautious about raw silk commitments. Most of them are covered on their needs to the end of the year.

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FABRIC MARKET REPORTS

TEXTILE WORLD ANALYST

◆Cottons Still Drag on Recent Bottom

THE cotton goods market has met with only minor changes during the week. Undesirable instability still exists in many quarters of the field. Although gray goods are a bit firmer at bottom levels, the wash goods branch has encountered demoralization through clearing surplus stocks. As a whole the trade is quiet with buyers waiting for further developments in general distribution before placing any further commitments on cotton fabrics.

Gray goods before the Thanksgiving holiday were quiet. Inquiry was light, but prices generally were holding at the low levels reached last week. It was believed that the experience of last week had doubtless startled many manufacturers into giving more thought before expanding their production, with the result that the market would avoid the pitfall of overproduction which seemed about to open before it. With prices remaining on the new bottom, it is perhaps worthy of comment that buyers are not availing themselves of the opportunity to get cheap goods. The edge seems to be gone from their appetite, perhaps due to the experience of last week's price collapse and also to the approaching year-end inventory when they wish to show as clear shelves as possible. A number of mills have not met the market on print cloths, and at ⅛c above it they report that they are doing a fair business. Others, who cannot claim this achievement, are content to wait until the market comes up to them. The low prices involve a loss on every yard according to authorities and it seems that the industry will have to go through another period of backbone building.

The price basis at mid-week was 3½c. for 38½-in. 64x60s, and it was possible to buy 39-in. 68x72s in some quarters for 3¾c., although no variety of sources were available below 3⅞c. In broadcloths it was necessary to pay 5⅝c. for spots of 100x60s with later deliveries available at ⅛c. less. In the sheeting field 4-yard 48-squares sold for 4c. The 40-in., 3.50-yard, partwaste osnaburg brought 3¾c. for spots with contracts ⅛c. more.

Disposal of surplus stocks has temporarily disrupted any reasonable scale of values in the current wash goods market. Buyers have little chance to accumulate confidence in the market. If sellers would look into the retail situation they would perhaps be encouraged to hold firmer prices for there are plenty of goods available at a wide range of values and a cut in a certain line merely brings it down into competition with the line just below it. The merry chase goes on and it is not at all certain that any extra yardage is distributed because prices have been shaved to a profitless point.

The market for sheets and pillow cases is highly competitive and several of the leaders are planning extensions of their promotional campaigns next year. One of the companies has offered a 10% discount on its branded line for the purpose of stimulating covering for the annual white sales. It is said to be harder to sell unbranded lines.

Seasonable cotton goods, like all other seasonable goods, are backward because of the extended period of warm weather this fall. Cottons have suffered probably less than other textiles in this respect. Outing flannels, which are one of the lines most susceptible to this effect, are reported a bit irregular though stocks nowhere appear truly burdensome. Advent of cold weather in the more northern sections of the country have brought orders for these goods and it may well be that more general cold weather will find the market supply inadequate.

◆Mild Weather Slows Wool Goods Sales

WOOL goods outlook for December depends very largely upon weather developments. The abnormally warm fall has so delayed retail movement of winter apparel that the garment industry is feeling the reaction in accumulation of stocks. The advancing season is forcing cutters-up to place a certain amount of wool goods business, but yardage movement is not free. This hesitancy explains much of the acute price-cutting which has characterized trading in wool goods since the spring lines opened. Prices today are weaker than they have been in some years, and their end-year levels will depend partly upon weather and partly upon stocks.

Current buying leans to low-priced lines where there is excessive emphasis on price. In fairness to cutters-up, it must be said that they are not stressing price any more than the wool goods mills themselves. The latter, especially at the worsted end, are forcing fabrics on an unwilling market, and they often slash levels to the point of just trading dollars. The margin of profit in wool goods is less than it has been for some seasons and this is ascribed largely to the manufacturers' willingness to sacrifice. While "Wool Week" has improved market tone, the improvement has not been sufficient to inject any real firmness into prices. The movement to make the "Wool Week" campaign a permanent proposition is the best sign of the moment and definite steps in this direction could do much to lift wool goods out of its present uncertainty.

◆Rough-Surface Silks Increase in Favor

CUTTERS-UP register increasing interest in the spring broadsilks and the holiday week has brought some spirited buying. One feature of current demand is the strong leaning toward rough fabrics for both day and evening wear. These include an unusually attractive range of spring shades and novel weaves which have fashion approval for the coming season. Already some important New York retailers are promoting the rough fabrics for formal apparel and mills look for further increase in the demand for these lines. The garment industry as a whole is especially interested in novelties and while it would be hazardous to rely too much on this trend, it promises to be important for a few weeks, at least.

All present orders are small and for early shipment. Weavers do not expect to see any real future buying this season and will be satisfied if the current spot movement shows normal increase. There is a good call for prints, especially medium-sized geometric designs; indeed, geometrics are more popular than was expected. Large florals in pastel shades continue in favor for evening wear. Broadsilk houses look to the spring season with much confidence.

▸Utica Offers 10% Discount

The Utica Steam and Mohawk Valley Cotton Mills, Utica, N. Y., announce a 10% additional discount, effective this week on their Utica and Mohawk sheets and sheetings, bleached and colored goods. This is believed to mark the first step in the company's 1932 promotion plans. Coming at this time, the price reduction enables merchants to feature Utica and Mohawk sheets both for Christmas and January sales at the lowest prices that have prevailed in a great many years.

▸Add Clothing and Textile Men to Arbitration Panel

Appointment of additional representatives from the clothing and textile trades on the National Panel of Arbitrators of the American Arbitration Association has been made by Lucius R. Eastman, president. The new appointments, all of whom will serve on the New York Panel of Arbitrators, are as follows:

Men's Clothing—Mark D'Andrea, Emmet M. Baum, Paul Feiss, Sol Heuman, W. K. Loomis; Women's Dresses—Abraham C. Langman, Herman Floersheimer; Textiles—S. Y. Austin, F. S. Bruyn, Fred B. Mauley; Laces, Curtains and Embroidery—Lewis Hollander, David E. Schwab.

NEXT TO YOURSELF
You like a name of

Importance

BIG STORES balk at cluttering up good advertising space with unimportant names. It doesn't pay a store, they argue, to link its name with one of lesser rank.

But big stores—the biggest of them all—tell the world when fabrics, dresses, lingerie are made of Du Pont Rayon. For Du Pont is a name they don't have to sponsor—a name that stands on its own.

Haven't you yourself seen eyes, that stay cold when you mention "rayon," light up when you add "Du Pont"? Du Pont gives quality to your fabrics . . . gives you a quick password to retailer interest.

Help yourself to the extra "lift" of the name buyers feature. Weave your next sensational fabric of Du Pont Rayon.

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REG. U.S. PAT. OFF.

DU PONT RAYON COMPANY
Empire State Building
350 Fifth Avenue, New York City

KNIT GOODS MARKETS

TEXTILE WORLD ANALYST

◆Stability Helps Swimsuit Sales

MANUFACTURERS of bathing-suits are ending Novembeer in somewhat better position than they had expected. The slow response to swim-suit openings was a decided disappointment, and this was not alleviated during the two weeks following when salesmen on the road found little interest among their customers. During the last ten days, however, demand has picked up considerably; numerous of the important chain distributors placed their first orders and at the time of writing a large part of the initial business had been written. Small jobbers and retailers still hold off, but many of these are expected to contract early in December. Much of the delay was due to price uncertainty and now with prices fairly stable, the market looks for steady buying.

Heavyweight sweater demand, which had been a high-pressure proposition for some weeks, has eased off, because of the unseasonable weather conditions, and most of the mills have caught up with deliveries. Duplicates come in slowly, and indications point to a week or so of lull. The only development which might upset that forecast is a sustained spell of winter weather. Lightweight sweaters appear to be in better demand than winter garments and some good-sized orders for the former were placed just prior to the holiday. Prices of heavyweight hold steady; the price factor seems to be of minor importance in the market; low stocks in mills have helped greatly to keep levels firm.

◆Increased Call for Spring Underwear

SPRING underwear lines show improvement. With the entire trade now offering its 1932 merchandise, buyers are more confident and they have placed considerable business on union suits and shirts and shorts. There is especial interest in nainsooks, some agents reporting a more-than-seasonal demand for the latter. Heavyweight underwear continues active, though the pace has been modified by backward weather. The real volume on spring lines is not expected to develop until retailers find their ribbed garments moving which trend in turn awaits a sharp spell of crisp winter weather.

Most of the larger mills are still sold ahead on ribbed underwear, and are asking two to three weeks for delivery. Buyers seem reconciled to present prices and there is less pressure at that end. Manufacturers themselves stoutly assert that heavyweight prices will hold steady until the end of the season, and they are so emphatic on the point that customers have begun to believe it. The heavyweight market is in a healthy position thanks to low stocks, and indications point to a very small carryover at the end of the season. Continued bit-by-bit buying on the part of the distributors together with the weather situation, are prolonging the heavyweight underwear season and the market now looks for fairly steady movement of ribbed garments through January. Several firms which usually offer their fall lines in late January indicated this week that they probably would not open before Feb. 1.

Underwear factors as a whole are confident of outlook. Careful watch on stocks has served to improve industry's position and prices are holding to comparatively satisfactory levels. Distributors talk optimistically of the new year and seem less hesitant about buying in December than they were last year.

◆Christmas Hosiery Demand Improves

THANKSGIVING week spurred movement of hosiery lines and the trend of buying made it clear that women's lace full-fashioned hosiery is a leading Christmas gift feature. In full-fashioned ranges, lace stockings are easily the most active and the most profitable at present. Mills specializing on these lines enjoy a healthy turnover with a margin surprisingly good for this year of poor profits, and knitters who include mesh among their staples find the former their best source of revenue at the moment. Mesh hosiery retailing at from $1.35 to $2.50 is being eagerly picked up by both jobbers and retailers, and stocks are none too plentiful. Some mills are asking ten days to two weeks for shipment. Large-spaced designs are favored and the color trend still leans to very dark shades. Lace-tops also registered a pick-up this week and promise well for the next two weeks.

It could not be said that demand equals last Christmas season; delay in placing business has had the usual result of causing mills to lose business because of inadequate stocks. Staple full-fashioned hosiery sales are well ahead of October, and prices are steadier, but the aggregate volume is well below this time last year. However, mill men take the business as it comes and are not complaining. Half-hose also has shown a seasonal improvement; the better grades of fancies, retailing at 75c. and $1.00 are in good call. Prices, while not so cut-throat as they have been, are none too steady.

◆Raw Cotton Reports

(Continued from page 71)

all the cotton growing States were present and all with the exception of North Carolina indorsed the plan for a uniform legislation to bring about a reduction of 50% in acreage modelled after the Texas plan. The resolution called for the enactment of such legislation by the various States by Jan. 20.

According to an announcement by the Federal Farm Board, southern bankers have pledged themselves to finance 3,100,000 bales of cotton until the end of the season, unless prices in the meantime reach the 12½c level. This was 400,000 bales short of the quota set at the New Orleans conference of Oct. 12, but it is hoped that additional pledges will be received covering at least that amount, and the Federal Farm Board states that it will carry out its part of the agreement tentatively reached at New Orleans, in other words, finance the holdings of the Staple Cotton Cooperative Association and the American Cotton Cooperative Association amounting in all to about 3,300,000 bales until the end of the season while if the acreage reduction plans of the Jackson conference are carried out, these holdings may be financed for another year.

Meanwhile, reports from the domestic goods market have been rather disappointing, with talk of renewed curtailment particularly in the case of mills producing print cloths. The most favorable reports now appear to be coming from Manchester.

◆Comber Scarce; Prices Strong

Scarcity of peeler comber is the outstanding feature of the cotton waste situation at the present time. There has been steady buying of this spinnable material by domestic and foreign mills for some time while output has been restricted owing to curtailed operations of producing mills. In one or two instances this week, it was reported, spinners paid 100% of spot cotton for choice lots of peeler comber, while waste dealers have been forced to pay as high as 5¾c. to cover their requirements.

Other spinnable wastes are sympathetically strong, fancy peeler strips being firmly held at 5½c. or even 5¾c. Demand for picker and fly continues very dull; prices on these stuffing wastes are depressed because of the large supplies of linters hanging over the market. The thread section of the market shows no improvement.

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It is a *pure* Olive Oil sulphonated to a degree previously considered impossible in a commercial product. Its absolute purity and high sulphonation make S-370

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PRINTEX GUM
TEXTILE GUM C

Plan to Attend the Annual Meeting of the A.A.T.C.C., Boston, Mass., December 4-5

JACQUES WOLF & CO.

Manufacturing Chemists and Importers,

PASSAIC, NEW JERSEY

WAREHOUSES

PROVIDENCE, R. I.
PHILADELPHIA, PA.
UTICA, N. Y.
CHICAGO, ILL.
GREENVILLE, S. C.
CHATTANOOGA, TENN.

◆N. E. Southern Corp. Shows Loss

NEW ENGLAND SOUTHERN CORP. reports for the year ended Sept. 30, 1931, a loss of $8,888 after allowing $304,662 for depreciation and $26,833 for current interest, but before interest charges accruing on the funded debt. After allowing for the latter the net loss totaled $341,703 which compares with an operating loss in the previous year of $364,138.

Net sales for the period just closed totaled $3,850,945, which compares with sales of $5,120,995 in the previous year. Net quick assets totaled $1,342,016 as compared with $1,255,844 a year ago. The annual meeting will be held in Boston, Dec. 1.

Hathaway's Small Net Loss

For the fiscal year ended Sept. 26, 1931, the Hathaway Mfg. Co., New Bedford, Mass., showed a net loss of $12,841, as compared with loss of $27,381 a year ago. The company's operations showed a profit of $77,159, the net loss being due to depreciation charges of $90,000. In the balance sheet real estate is listed at $686,517, machinery at $1,448,234, merchandise at $731,298 and cash and receivables at $365,159. The officers were reelected at the recent annual meeting. The fact of the operating profit is regarded as a hopeful sign, even though more than offset by depreciation charges.

50-Year Record of Acushnet

During the 50 years of its existence, the Acushnet Mfg. Co., New Bedford, Mass., now being liquidated, distributed to stockholders an aggregate amount of $6,455,000. Organized in 1881, the first mill was built in 1882, the first financial statement of July, 1883, showing a loss of $7,227, with a gain of $7,308 for the next quarter. The first dividend, one of 2%, was paid in December, 1884. Dividends were continued without a break until May, 1928, when the regular disbursement was passed for the first time in 44 years. In November, 1929, directors voted to recommend liquidation of the assets, the recommendation being acted upon by the stockholders.

During the last 50 years the company paid out the following sums; extra dividends, $1,827,500; regular dividends, $3,827,500; liquidation dividends, $800,000; total, $6,455,000. The total amount paid in by stockholders was $500,000. At the annual meeting on Nov. 19 remaining assets were reported as totaling $68,607 with a contingent liability.

Brantford Cordage Reports Profit

Brantford Cordage Co., West Brantford, Ontario, Canada, in its report for the fiscal year ended Aug. 31, 1931, show a profit of $20,994, after providing for depreciation and income tax amounting to $89,019. During the year, regular quarterly dividends on first preferred stock has been paid amounting to $133,296; first preferred shares to the par value of $39,500 have been retired through sinking fund, and while the surplus decreased by $152,983, cash on hand and in bank shows an increase of $897,473, and inventories have been reduced to $472,845.

Boott Wins on Tax Valuation

A valuation abatement of $948,040 in favor of the Boott Mills against the City of Lowell has been awarded by the State Board of Tax Appeals on the 1929 levy. The petitioner is awarded $28,061.98 plus interest and costs. The board held the municipal assessors had for valuation purposes more than doubled the fair cash appraisal worth of the property in 1929.

The assessed valuation of the Boott Mills, for machinery and real estate was $1,932,800, divided as follows: real estate, $730,950, and machinery, $1,201,850. The finding of the Board of Tax Appeals is to the effect that the fair cash valuation of the property of the Boott Mills is $984,760, divided as follows: real estate, $434,760 and machinery, $550,000.

Financial Brevities

A new issue of no-par common stock has been authorized by the reorganized Wolfinger Knitting Mills, Reading, Pa. The company now has 100,000 shares of common stock, no par, in its financial makeup, with no bonds or preferred stock. It has equipped its plant for the manufacture of women's fine gauge full-fashioned silk hosiery, and has discontinued the making of seamless hosiery. William D. Wolfinger is president and John P. Wolfinger, secretary, treasurer and general manager.

J. & P. Coats (R. I.) Inc., Pawtucket, R. I., has received a reduction of $10,000 in its tax assessment for this year. First figures by the tax assessors reveal that several Pawtucket textile firms have received reductions, including Acme Finishing Co., Cull Silk Mills and the Colonial Processing Co. The city's tax rate was lowered this year from $2.25 per hundred to $2.10 per hundred, but a revaluation program has raised taxes in many instances. The Coats firm, the largest taxpayers in the city, pays a tax on $2,723,960 real estate; and $3,453,040 tangible, with a total tax of $129,717.

Raybestos-Manhattan, Inc., Bridgeport, Conn., reports a net profit of 13c. a share on 676,012 shares for the third quarter ending Sept. 30. This compares with 19c. a share for the third quarter of 1930. For the nine months period the profit amounts to 99c. as compared with $1.41 a share for the corresponding nine months of 1930.

The American Woolen Co.'s Boston, Mass., office has been notified by the Bureau of Internal Revenue of a tax overassessment amounting to $224,801 against the 1923 income.

Directors of the West Boylston Mfg. Co., meeting in Boston, have passed the preferred dividend due Dec. 1. Three months ago the company paid $1.50 per share on the preferred.

Boston Stock Auctions

The following sales of textile shares were made at auction Nov. 18:

Shares	Mill	Par	Price	Change
112	West Point	100	40	—30
4	Ludlow	...	67½	+ 2½
100	Lancaster	100	10c	....
100	Lancaster, pfd.	100	2½	....
1,060	Southern Worsted	100	50 lot	....
1,376	Total			

▶New England Textile Stocks

Quotations at "Public Sale" are based on last sales at Boston Public Auctions and Boston Stock Exchange. Bid and Asked prices are latest quotations of dealers.

	Sale	Bid	Asked
Am. Mfg. Co., pfd.	50	48	..
Amoskeag	5½	..	..
Arlington	23	17	20
Associated Textile	10	..	10
Bates	60	41	..
Berkshire Associates, com.	12½	2	4
Berkshire Associates, pfd.	40½	11	15
Bigelow-Sanford, com.	21½	..	..
Boott Mills	120½	40	60
Edwards	80½	42	46
Esmond, pfd.	98	95	99
Farr Alpaca	27	26	28
Hamilton Woolen	55	45	50
Hill	7	4	6
Indian Orchard	10	..	10
Ludlow	67½	65	68
Merrimack, com.	35	8	14
Nashua, com.	7½	3	6
Nashua, pfd.	29	20	25
Naumkeag	50	49	53
Newmarket	16½	7	11
Otis	45	40	44
Pacific	11	..	..
Pepperell	42½	41	44
Plymouth Cordage	56	52	55
York	8½	6	..

▶Textiles on N. Y. Exchanges

The following shows the movements of the leading textile stocks listed on the New York Stock Exchange and Curb for the week ended Nov. 23.

	High	Low	Last Sale	Net Ch'ge
Adams Millis	28½	27	27	—3
*American Thread, pfd.	3½	3½	3½	+ ½
American Woolen	5½	5	5	—1
American Woolen, pfd.	25½	22½	22½	—6½
Belding-Heminway	4¼	4	4¼	— ¼
*Blumenthal	6	6	6	— ½
Cannon Mills	19½	19	19½	— ½
Century Ribbon	6½	6½	6½	— ½
Collins & Aikman	10	8½	9	—2½
Consolidated Textile	½	½	½	— ½
Duplan Silk	10	10	10	....
Gotham Hosiery	8½	8½	8½	....
Industrial Rayon	30½	27	27	—6½
Kayser, Julius	10	9½	9½	—1½
Mallinson	1½	1½	1½	....
*May Hosiery, pfd.	20	19½	19½	— ½
*Mock Judson	4	3	3	—1½
Mohawk Carpet	9½	9½	9½	— ¼
Munsingwear	15	15	15	—4
Pacific Mills	10½	10½	10½	— ½
*Pepperell	40½	40½	40½	+ ½
*Propper-McCallum	1½	1½	1½	—1
Real Silk Hosiery	4½	3½	3½	— ½
*Tubize	3½	3	3	....
United Piece Dye Works	12½	11	11½	—3½
Van Raalte	7	7	7	—5

*Listed on Curb.

Canadian Textile Men in Convention Take Steps to Protect Home Industry

THE 13th annual meeting of the Canadian Woolen and Knit Goods Manufacturers Association, held at Royal York Hotel, Toronto, on Nov. 18, was a representative gathering of spinners, knitters, hosiery men and dyers from all parts of Canada. President M. B. Holton of Chipman-Holton Co., Hamilton, Ont., in his opening address dealt comprehensively with the economic situation, declaring that if Canada was to meet her commitments abroad it would be necessary to encourage purchases in Canada and discourage purchases of foreign goods as far as possible. Notwithstanding the depression the textile industry had in many cases provided steady and increased employment; for example one mill in 1930 which was working with 700 on part time was now employing 1,000 on full time. But for the changes in the tariff affording increased protection to the industry few mills in Canada would now be operating, Mr. Holton said. A matter which was giving manufacturers much concern was the lifting of the Canadian fleece wools of the 1931 clip. Canadian mills now use practically all the pulled wool produced in Canada, and certain classes of fleece wool. In the past there had been a market for Canadian fleece wools abroad; that export market had not been there this year and as a result fleece wools had backed up in Canada.

Mr. Holton referred at some length to the forthcoming Imperial Economic Conference stating that tariff adjustments could be arranged so that Britain and Canada could first protect their own industries, and secondly give a preference to countries within the Empire, which would greatly benefit their textile trade. During the discussion which followed it was pointed out that the French Treaty of 1923 which fixes duty rates on knit goods from all exporting countries except Germany and the United States would have to be cancelled before preference could be given to Britain.

It was decided that Canadian manufacturers using wool unanimously agree to scrutinize all their purchases and wherever possible give preference to Canadian wools, and that a committee of the association immediately consult with committees from the wool dealers' and wool growers' organizations. The association endorsed the suggestion that further financial support be given to the Textile Laboratory of the Ontario Research Foundation. H. Barrett of Dominion Woolens & Worsteds, Toronto, was elected president, and Douglas Woods of York Knitting Mills, Toronto, vice-president.

▸ "Make It a Cotton Christmas!"

A Christmas broadside is being distributed to several thousand retail store executives throughout the country by the Cotton-Textile Institute bearing the above slogan. Inside the folder are listed the types of things that will sell this Christmas, and "being Cotton they're temptingly priced" says the broadside. The fact that cotton is cheaper than at any other time in 30 years is stressed.

▸ Agriculture Dept. at Work on Cotton Consumption Data

Only difficulties encountered in the elaborate statistical compilations involved have prevented the Department of Agriculture from issuing a regular annual report on the quality of cotton consumed. The Department recognizes, according to Arthur W. Palmer, chief of the Cotton Division, the value both to producers and manufacturers of information on the relative demand for the various grades and staples. But cotton consumed has disappeared and assembling the data on grade and staple is a much more formidable task than compiling the related reports on the quality of the crop and carry-over.

Department statisticians are working now on a report covering the quality of cotton consumed in the year ended July 31 last. It will be issued just as soon as a check against the reports on crop and carry-over has been completed. "The Department feels," said Mr. Palmer, "that the report should be one on which the trade can rely, hence the painstaking care that has been given to developing precise statistical methods. No attempt will be made in the forthcoming report to supply comparative data for the years that have intervened since the first report for the year ended July 31, 1928, but it is the Department's intention to issue a report annually in the future 60 days after the close of the cotton year."

▸ New Bedford 10% Wage Reduction Accepted

Effective Dec. 7, wages in the cotton mills of New Bedford will be reduced 10%, following due notice given to operatives by the New Bedford Cotton Manufacturers' Association and three other mills not affiliated with the association, these being the Nashawena, Nonquitt and Dartmouth. Of the 16 mills in the manufacturers' organization, the Pemaquid had made a readjustment some weeks ago, the same being true of the Beacon and the tire fabric mills.

As the outcome of the 1928 mill strike in New Bedford, which engendered much feeling between operatives and manufacturers, an agreement was, drawn up by both parties, to the effect that no reduction or advance in wages could be effective until after 30 days' notice had been given.

This formal notice was sent out by the manufacturers, and in turn was passed on by the Textile Council to the nine unions making up the Council, for acceptance or rejection. The nine locals all met at the same time to ballot on the question, and voted to accept the cut, in the hope that it will have a tendency to improve the textile industry in this city.

The reduction affects approximately 20,000 operatives, and based on the present payroll of the mills, is expected to give the manufacturers a margin of approximately $30,000 weekly over the old scale of wages, or about $1,500,000 yearly.

▸ N. Y. Outerwear Group Plans General Meeting

A meeting of the board of directors of the Metropolitan District Knitted Outerwear Manufacturers Association was held last week at the Hotel McAlpin, New York, to prepare for a general meeting of the membership to be called shortly. This meeting will deal with such important problems as changing phases of distribution of jobber and retailer, industrial relations and the future prospects of the industry.

It is also expected that at this meeting a proposal will be made for closer co-operation with the knitting branch of the Textile Evening High School now established on West 18th Street, New York. The association claims the honor of having been instrumental in proposing the idea which has devolped into present institution.

▸ Boston Wool Receipts

Receipts of domestic and foreign wools at Boston, also imports at Philadelphia and New York for the week ended Nov. 21, based upon data compiled by Dept. of Agriculture, follow:

	Week Ended Nov. 21	Total to Date 1931	Total to Date 1930
Domestic	3,059,000	249,379,000	239,641,000
Foreign	70,000	36,481,000	53,267,000
Total	3,129,000	285,860,000	292,908,000
IMPORTS AT PRINCIPAL PORTS			
Boston	70,000	36,481,000	53,267,000
Philadelphia	956,000	48,483,000	41,339,000
New York	439,000	47,792,000	40,259,000
Total	1,465,000	132,756,000	134,865,000

▸ Department of Commerce Moves to New Home Jan. 1

The Department of Commerce will move into its new $17,500,000 home in Washington, Jan. 1 to 5. The first event in the new building will be the dedication, Dec. 2, of the auditorium, by the President, who was Secretary of Commerce, when the project was begun.

▸ Oneida Low Bidder on Army Drawers

Bids opened Nov. 21, by the United States Quartermasters depot at Philadelphia show that the Oneida Knitting Mills, Utica, N. Y., submitted a low bid on 180,000 pairs of men's cotton drawers at 27c. a pair, 1% 10 days.

▸ New British Tariff Law Now Effective

American exporters of textiles were still somewhat in a state of flux regarding the new British tariff duties when these imposts become effective in Great Britain at midnight Tuesday. French, German and other firms rushed merchandise by plane to British ports to get through before the "anti-dumping" measure became law. English buying offices in Paris quickly contracted for stocks of silk hosiery available in Paris and speeded the merchandise to England. London reports indicated that importers of American silk hosiery had been receiving numerous anxious cables from American firms regarding future plans with respect to the British market. The American manufacturers were undecided up to the last minute regarding policy, but some thought was being given to the idea of discounting part of the duty from profits.

It was stated in Washington Tuesday that the Administration feels no particular concern over the new British tariff policy, since it involves only 1.6% of our total export trade with Great Britain. Britain imported $8,675,000 worth of silk hosiery in 1930 of which only $415,000 came from the United States.

▸ L. C. Chase & Co. Announce Seam Loc Carpet

The Seam Loc Carpet, a new type of floor covering with all-wool face and patented back which forms its own selvage wherever cut, is announced by L. C. Chase & Co., selling agents for Sanford Mills. It is stated that the new carpet eliminates 80% of the waste encountered in assembling the conventional types of carpets, and saves 20% in labor when laying. Since the edges of the Seam Loc carpet are parallel and do not fray, fabrication of various room sizes is carried out without sewing or hand binding; it being necessary only to apply cement and tape, and to lay the carpet.

The carpet, which is the result of three years of research and experimentation, is manufactured in five grades, eighteen colors, and two widths—6/4 and 4/4.

An exhibit of Seam Loc is now being held in the show rooms of Sanford Mills, carpet division, Textile Building, New York.

▸ Erecting, Aligning and Adjusting Full-Fashioned Machines

(continued from page 53)

a check on the whole previous assembly consists in noting whether the pin holes absolutely align with each other. A misalignment is a clear indication that the erection to this point has not been properly made.

The other shafts of the machine can now be attached, it being remembered to note whether all pin holes align. If they do not do so, all the previous work must be rechecked and the necessary corrections made. It is absolutely essential that all parts not pinned be gauged from other pinned parts or from finished edges previously checked.

As each movable shaft, bar, or rod is added, a test should be made of it to see that it moves or turns freely in its bearings, as in this manner we can check the step-by-step process of erection and correct any previous faults.

As the rollers on the various levers should have been properly set at the machine-shop erection, and as most of the roller levers are pinned to their shafts, all necessary adjustment, if any, must be made at the rollers. A good way to check as to whether adjustment is necessary is to apply only one spring, preferably on a centrally disposed lever of any one type; put a gauge block under the roller of this lever and against its cam; and then, with a gauge block of like thickness and without attaching the other springs, feel whether the distance between each roller and its cam is the same as the gauge-block thickness between the roller and cam of the spring-connected lever.

The writer prefers at this stage of the erection to check the circumferential setting of the cams on the camshaft, which must be done with the special cam-setting gauge furnished with the machine. The method used by the writer is to turn the camshaft so that one of a particular series of cams is in line with the end of the gauge, place paper shims under the caps of a few camshaft bearings, and thereafter tighten the caps so that the camshaft cannot move. If the gauge is now used on all like cams of any series, such cams as are not properly set circumferentially can be adjusted, the object of course being to insure that all like cams are set exactly in line with each other and in proper circumferential alignment with the other cams on the shaft.

Assuming that the erecting up to this point has been properly carried out, the attaching of the other parts of the machine will be a relatively simple matter if intelligent use of the gauges provided therefor is made. Such further erection will be described in a succeeding article.

"A Fair Profit or No Sale"

"We hope the day will soon dawn when every transaction will follow the slogan, 'A Fair Profit or No Sale.' Then will industry be on a 'live-and-let-live' basis, consistent with the Golden Rule, and then will prosperity return."

This is the timely thought emphasized in a Thanksgiving Day message to its friends in the trade by Carolina Dyeing & Winding Co., Inc., Mt. Holly, N. C., through its president, Edwin F. James.

Business News

Mason Regulator Co. Acquires Neilan Co.

The Mason Regulator Co., Boston, Mass., has acquired the Neilan Co., Ltd., Los Angeles. In its particular field, the oil and gas industry, the Neilan Co. occupies a position of dominance equal to that of the Mason Regulator Co. in the general industrial field.

F. Kenneth Morrison, sales manager of the Mason Regulator Co., states that "through the joining of the Mason and the Neilan companies we are now able to offer a broader and more useful service to every industry interested in efficient control of process and power operations."

Complete engineering, manufacturing, sales and service activities will be maintained both in Boston and Los Angeles. The distribution network is, of course, considerably broadened. Mason-Neilan offices, manned by engineers thoroughly familiar with the consolidated line of control equipment, are now established at the following points: Boston (Mason Regulator Co., 1190 Adams St.); Los Angeles (641-651 Santa Fe Avenue); New York (19 Rector St., R. B. Werey in charge); Chicago (400 No. Michigan Ave., under the direction of Arthur J. Foley and William P. Gearon); Pittsburgh (1301 Clark Bldg., in charge of Bruce Irwin); Montreal (Mason Regulator Co. of Canada, Ltd., 686 Notre Dam St. West, under the direction of H. L. Peiler and M. F. Peiler).

In addition to these main distribution points, stocks are to be carried in at least 32 other cities in the United States where they will be handled by the already-established Mason and Neilan distributors.

E. F. LeNoir Joins Allen-Bradley Co.

Eugene F. LeNoir, formerly president and general sales manager of the Union Electric Mfg. Co., Milwaukee, Wis., has become associated with the Allen-Bradley Co., Milwaukee. Mr. LeNoir was for eleven years active in the manufacture of master drums, motor starters, and other control equipment. In his new capacity he will contact motor manufacturers through the Allen-Bradley district offices and agents, as a special representative.

LaMonte J. Belnap Made Chairman of Worthington Executive Committee

The board of directors of Worthington Pump & Machinery Corp. has announced the election of LaMonte J. Belnap as chairman of the executive committee of that corporation. Mr. Belnap is succeeded as president by Harry C. Beaver, formerly vice-president.

C.I.T. Buys Business of Northern Acceptance Corp.

C.I.T. Corp., New York, has purchased the business of Northern Acceptance Corp., a finance company with offices in Watertown and Glens Falls, N. Y. C.I.T. will establish an office at Watertown and give localized service to dealers and purchasers.

QUOTATIONS

At close of business, Nov. 24, 1931
Prices cover average qualities unless otherwise stated

Cotton Goods

	Nov. 24	Nov. 18	Nov. 25 1930
PRINT CLOTHS			
27 -in., 64x60, 7.60	2½–2 9/16c.	2 9/16c.	4½c.
38½-in., 64x60, 5.35	3½c.	3½–3¾c.	5½c.
39 -in., 68x72, 4.75	3½–3¾c.	3¾–4 c.	6½c.
39 -in., 72x76, 4.25	4¼–4 c.	4¼c.	7 c.
39 -in., 80x80, 4.00	5–5¼c.	5–5¼c.	7½–8 c.
BROWN SHEETING			
36-in., 56x60, 4.00	4¼c.	4¼c.	6¾–6¼c.
36-in., 48x48, 3.00	4¼c.	4¼c.	7¼–7¼c.
37-in., 48x48, 4.00	4c.	4c.	5¼–6 c.
PAJAMA CHECKS			
36½-in., 72x80, 4.70	4¼–4¼c.	4¼–4¼c.	6¾c.
36 -in., 64x60, 5.75	3½–4c.	4 c.	5¼c.
MISCELLANEOUS			
Drills, 37-in., 3 yd..	5c.	5 c.	7¾c.
Denims, 2.20	9¼c.	9¼c.	12¼c.
Tickings, 8 oz.	13 c.	13 c.	16 c.
Standard prints	7 c.	7 c.	7¼c.
Eastern staple ginghams, 27-in.	7¼c.	7¼c.	8 c.

Cotton Waste

Peeler comber	5¾ – 6¼
Peeler strips	5¼ – 5¾
Sak. comber	4¾ – 5¼
Choice willowed fly	2¾ – 3¼
Choice willowed picker	2 – 3
Sak strips	6¼ – 7
Linters (mill run	1¾ – 2¼
White spooler (single)	4¼ – 4¾

Cotton Yarn

CARDED (Average Quality)
Double Carded 2c.—4c., higher according to quality

SINGLE SKEINS OR TUBES (Warp Twist)

4s to 8s	$0.13½	22s	$0.17
10s	– .14	24s	– .18
12s	– .14½	26s	– .19
16s	– .15	30s	– .20½
20s	– .16	40s ex. qual.	– .30

TWO-PLY SKEINS AND TUBES

8s-2	$0.14	26s-2	$0.19
10s-2	– .14	30s-2	– .20
12s-2	– .14½	36s-2	– .26
14s-2	– .15	40s-2	– .28
16s-2	– .15½	40s-hi.brk.	– .30
20s-2	– .16½	50s-2	– .36
24s-2	– .18	60s-2	– .39

SINGLE WARPS

10s	$0.14	24s	$0.17½
12s	– .14	26s	– .18½
14s	– .14½	30s	– .20
16s	– .15	40s. ex.qual.	– .30
20s	– .16		

TWO-PLY WARPS

8s-2	$0.14	24s-2	$0.18
10s-2	– .14½	26s-2	– .19
12s-2	– .15	30s-2	.20 – .20½
14s-2	– .15½	40s-2 ordin.	– .28
16s-2	– .16	50s-2	– .36
20s-2	– .17	60s-2	– .39

8s-2 and 4-ply skeins and tubes; tinged, 13; white, 14; waste, 12

HOSIERY CONES (Frame Spun)

8s	$0.13½	22s	$0.17
10s	$0.13½– .14	24s	– .18
12s	.14½– ...	26s	– .19
14s	.15 –	30s tying	– .19½
16s	.15½–	30s reg.	– .21
18s	.16 –	30s reg.	– .22
20s	.16½	40s	– .27

COMBED PEELER (Average Quality)

TWO-PLY—(Knitting Twist) Cones

20s-2	$0.25 – .26	60s-2	$0.40 – .43
30s-2	.28 – .30	70s-2	.52 – .54
36s-2	.32 – .33	80s-2	.63 – .65
40s-2	.33 – .34	90s-2	.85 – .90
50s-2	.37 – .38	100s-2	1.03 –1.05

WARPS, SKEINS AND CONES

TWO-PLY—(Warp Twist)

20s-2	$0.26	60s-2	$0.42
30s-2	– .31	70s-2	– .55
36s-2	– .34	80s-2	– .63
40s-2	– .35	90s-2	– .93
50s-2	– .38	100s-2	–1.03

SINGLES

12s	$0.20	30s	$0.26½–0.28½
14s	– .20½	38s	– .32
16s	– .21	40s	– .33
18s	– .21½	50s	– .37
20s	– .22½	60s	.44 – .45
24s	.24½– .25	70s	.55 – .56
28s	.26½– .27½	80s	.65 – .66

MERCERIZED CONES—(Combed, Ungassed)

26s-2	$0.36½–0.38½	90s-2	$0.90
30s-2	.38 – .40	100s-2	1.15–1.25
36s-2	.40 – .42	120s-2	1.50–1.60
40s-2	.42 – .44	30s	.51– .52
45s-2	.42½– .44½	40s	– .56
50s-2	.45 – .47	50s	.61– .64
60s-2	.50 – .54	60s	.70– .73
70s-2	.64 – .66	70s	.80– .83
80s-2	.73 – .75	80s	.92– .96

Cotton Prices and Statistics

COTTON STATISTICAL DATA

(Fluctuations of Futures)

	Closed Nov. 19	For the Week High	For the Week Low	Closed Nov. 24	Net Ch'ge
November	6.14	6.14	5.97	.....	.....
December	6.18	6.20	5.94	6.27	+.09
January	6.28	6.30	6.06	6.38	+.10
February	6.37	6.37	6.20	6.45	+.08
March	6.46	6.50	6.25	6.55	+.09
April	6.55	6.55	6.38	6.64	+.09
May	6.65	6.66	6.40	6.75	+.10
June	6.73	6.73	6.60	6.82	+.09
July	6.84	6.86	6.61	6.92	+.08
August	6.92	6.92	6.75	7.05	+.13
September	7.00	6.92	6.70	7.10	+.10
October	7.09	7.12	6.87	7.18	+.09

SPOT FLUCTUATIONS FOR WEEK

(Middling)

	New York	New Orleans	Liverpool
Thursday, Nov. 20	6.30	6.15	4.83
Friday, Nov. 21	6.20	6.04	4.89
Saturday, Nov. 22	6.10	6.01	4.82
Monday, Nov. 24	6.10	6.01	4.87
Tuesday, Nov. 25	6.35	6.25	4.94

FOREIGN COTTONS

Egyptian Cotton

Alexandria Exchange, Nov. 24		Change
Nov. Sak	12.17	—0.71
Dec. uppers	9.01	—0.29

Nov.-Dec. Shipment c. i. f. Boston
(Tariff not included)

Fully good fair Sak	13.25
Fully good fair to good Uppers	9.50

(By Anderson, Clayton & Co.)

Foreign cottons	F. O. B. New York, Cent
Peruvian Tanguis Strict Middling	17½
Peruvian Pima No. 1	16
Peruvian Moderate Rough	13
Peruvian Full Rough	17
China Tientsin No. 1	10
India Rough	7 to 9½
India Smooth	6½ to 8½

(By Bruns-Nordeman Co.)

MOVEMENT INTO SIGHT

	This Year	Last Year	Year Before Last
Week	706,000	482,000	479,000
Season	7,735,000	8,329,000	8,784,000

WORLD VISIBLE SUPPLY

	Today	One Year Ago
Interior towns and ports of U.S.*	6,877,000	5,690,000
Afloat to and at ports of Europe	1,383,000	1,772,000
Afloat to and at ports of Orient	659,000	321,000
Total	8,919,000	7,783,000
	Increase	Increase
Change during week	356,000	198,000

*Includes afloat to New York.

FORWARDINGS TO MILLS OF WORLD

	This Year Week	This Year Season	Last Year Week	Last Year Season
No. States, U.S.	13,000	253,000	26,000	246,000
So. States, U.S.	186,000	1,689,000	95,000	1,528,000
Total U.S.	199,000	1,942,000	121,000	1,774,000
Great Britain	32,000	335,000	25,000	288,000
Continent	68,000	919,000	91,000	1,134,000
Orient	47,000	732,000	38,000	306,000
Canada and other America	4,000	55,000	9,000	81,000
Total foreign countries	151,000	2,041,000	163,000	1,809,000
World total	350,000	3,983,000	284,000	3,583,000

EXPORTS FROM UNITED STATES

Total	264,000	2,452,000	261,000	2,928,000

AVERAGE PRICE NOV.-DEC. SHIPMENT
HARD WESTERN COTTON
F.o.b. New England

	Middling	St. Middling
1 1/16-in	8½–9c.	9¼– 9½c.
1⅛-in	9½–10c.	10 –10½c.
1 3/16-in	10½–11c.	11½–11¾c.
1¼-in	14 –15½c.	15 –16½c.

Basis on New York, December, 6.01.

SPOT FLUCTUATIONS AND STOCKS

Markets	Nov. 18	Nov. 24	Sales	This Week	Last Year
Galveston	6.15	6.25	3,575	955,391	691,033
New Orleans	6.19	6.25	15,407	759,258	689,431
Mobile	5.80	5.90	5,208	232,539	159,121
Savannah	6.01	6.10	2,684	362,022	297,411
Norfolk	6.25	6.31	199	69,326	96,283
New York	6.35	6.35	3,700	226,839	231,462
Augusta	6.00	6.13	787	136,088	144,311
Memphis	5.55	5.70	61,988	488,617	380,554
St. Louis	5.45	5.70	.....	.....	6,221
Houston	6.05	6.15	24,789	1,698,447	1,503,519
Dallas	5.70	5.75	54,691	50,780	43,510

DIFFERENCES ON AND OFF MIDDLING

WHITE GRADES

	Dallas	Memphis	Montgomery	Augusta	Average
M.F	0.65†	1.00†	0.75†	0.75†	0.75†
S.G.M.	.50†	.75†	.65†	.63†	.61†
G.M.	.40†	.50†	.55†	.44†	.44†
S.M.	.25†	.20†	.25†	.25†	.26†
S.L.M.	.40*	.40*	.40*	.38*	.39*
L.M.	.90*	.90*	.90*	.88*	.87*
S.G.O.**	1.40*	1.10*	1.40*	1.38*	1.28*
G.O.	1.90*	1.20*	1.90*	1.88*	1.70

YELLOW TINGED

G.M.	0.30*	0.25*	0.40*	0.50*	0.39*
S.M.	.55*	.40*	.65*	.75*	.62*
M.**	.90*	.50*	.90*	.88*	.85*
S.L.M.	1.40*	.90*	1.40*	1.38*	1.27*
L.M.	1.90*	1.40*	1.90*	1.88*	1.73*

YELLOW STAINED

G.M.	0.90*	0.60*	0.90*	0.90*	0.86
S.M.**	1.15*	1.10*	1.15*	1.25*	1.18
M.**	1.90*	1.35*	1.75*	1.90*	1.71

BLUE STAINED

G.M.**	0.90*	0.35*	0.90*	0.90*	0.84*
S.M.**	1.40*	.85*	1.40*	1.40*	1.26*
M.**	1.90*	1.10*	1.90*	1.90*	1.70*

**Grades not deliverable on contract.
*Off Middling.

Wool

OHIO, PENNSYLVANIA AND WEST VIRGINIA (IN GREASE)

Fine delne.	$0.24 –$0.25	¾ blood.....	$0.23 –0.24
Fine clthg..	.20 – .21	½ blood.....	.21 – .21½
¼ blood....	.23 – .24		

TEXAS AND CALIFORNIA (CLEAN BASIS)

Texas, 12 months	$0.55 –0.58
California, Northern	.48 – .50

PULLED—EASTERN (CLEAN BASIS)

A.A.	$0.58 –$0.60	B-Super....	$0.43 –0.45
A-Super...	.48 – .50	C-Super....	.38 – .40

MONTANA, IDAHO AND WYOMING (CLEAN BASIS)

Staple fine	$0.58 –0.60
Staple, ¾ bld.	.54 – .56
Fine and fine medium	.53 – .55
½ blood	.48 – .50
¼ blood	.40 – .42

MOHAIR—DOMESTIC

Best carding	$0.23 –0.25
Best combing	.31 – .33

MOHAIR FOREIGN (IN BOND)

Turkey fair, average	$0.17 –0.21
Cape firsts	.18 – .21

FOREIGN CLOTHING AND COMBING (CLEAN BASIS IN BOND)

Australia:	
70s	$0.45 –0.47
64s	.38 – .40
58s-60s	.33 – .35
(IN GREASE)	
Montevideo:	
58s-60s	$0.16 –0.17
56s	.15 – .16
50s	.14 – .15
Buenos Aires:	
4s, 40-44s	$0.11 –0.12
5s, 36-40s	.11 – .12

FOREIGN CARPET (GREASE BASIS IN BOND)

Aleppo washed	$0.23 –0.25
China: Combing No. 1	.13 – .14
China Filling Fleece	.12 – .14
Szechuen ass't	.12 – .14
Cordova	.14 – .15
Scotch black face	.15 – .17
East India: Kandahar	.17 – .19
Vican'r	.23 – .25
Joria	.23 – .24

Worsted Yarns

ENGLISH SYSTEM WEAVING

2-20s 36s	$0.75
2-24s 40s	– .80
2-26s 44s	.82½– .85
2-28s 46s	– .87½
2-30s 48s	.92½– .95
2-32s 50s	.97½–1.00
2-30s 64s fancy mixes	1.35 –1.37½
(Single yarns 5c. less than above)	
2-36s 58s	1.05
2-40s, 60s	–1.20
2-40s, 64s	1.27½–1.32½
2-50s, 66s	1.40 –1.45
2-60s, 70s	1.82½–1.85

ENGLISH SYSTEM KNITTING

2-20s, 44s in oil	$0.70 – .72½
2-20s, 48s in oil	.72½– .75
2-20s, 50s in oil	.75 – .80
2-20s, 56s in oil	.92½– .95
2-20s, 60s in oil	–1.00
2-20s, 64s in oil	1.12½–1.15
1-18s, 48s dyed	.90 – .92½
1-18s, 50s dyed	.92½– .95
(Oil yarns 17½c. less)	

FRENCH SYSTEM

1-20s, 58s	.97½–1.00
1-20s, 60s	1.02½–1.05
1-18s, 64s, dyed	1.25 –1.27½
1-26s, 64s	1.07½–1.10
1-30s, 66s, Warp	1.12½–1.15
1-30s, 64s, Warp	1.15 –1.17½
2-30s, 64s, Fancy mixes	1.35 –1.37½
2-40s, 64s, Zephyrs	1.27½–1.30
1-50s, 66s	1.42½–1.47½
2-50s, 66s	1.50 –1.55
1-60s, 70s	1.75 –1.80
2-60s, 70s	1.90 –1.95

FRENCH SPUN MERINO WHITE

1-30s, 50-50-58s on cops	$0.95 –1.00
1-40s, 50-50-60s on cops	1.10 –1.15
1-40s, 50-50-64s on cops	1.12½–1.15
1-40s, 50-50-64s Australian cops	1.20 –1.25

Underwear mixes, 3 to 5c., Solid color, 35c. additional.

New York Top Futures

	Closed Nov. 18	For Week High	For Week Low	Closed Nov. 23	Net Ch'ge
November	68.00	68.00	68.00	.....	.....
December	68.10	68.50	68.00	68.50	+.40
January	68.00	69.50	67.50	68.50	+.50
February	68.00	68.00	67.50	68.00	.....
March	68.00	68.50	67.50	68.00	.....
April	68.00	68.00	67.50	68.00	.....
May	68.00	68.50	67.50	68.00	.....
June	68.00	68.00	67.50	68.00	.....
July	68.00	69.00	67.80	69.00	+1.00
August	68.00	68.50	68.00	68.50	+.50
September	68.00	68.50	68.00	68.50	+.50
October	68.00	68.50	68.00	68.50	+.50

Tops and Noils

TOPS—BOSTON

Fine (64-66s)	$0.80 –0.83
Half-blood (60-62s)	73 – .76
High ¾ blood (58s)	.67 – .69
Aver. ¾ blood (56s)	.61 – .64
Low ¾ blood	.58 – .60
High ½ blood (50s)	.53 – .55
46s S. A. and N. Z.	.61 – .63
44s S. A. and N. Z.	.56 – .58
40s S. A. and N. Z.	.50 – .52

TOPS—BRADFORD, ENG. (NOV. 20)

Fine (70s)	28 d	¾ bld. (56s)	19½d
Fine (64s)	26 d	½ bld. (50s)	15 d
½ bld. (60s)	24½d	Cross-bred (46s)	11½d

NOILS—BOSTON

Fine	$0.30–$0.33	High ¾ bld.	$0.26 –$0.27
Half-bld	.30 – .31	Low noils	.21 – .23
Aver. ¾ bld	.26 – .28	Medium colored	.22 – .24
Fine colored	.30 – .31		

Wool Substitutes

WOOL WASTE

Lap, fine white	$0.55 – .58
Lap, fine colored	.40 – .43
Hard ends, fine white	.41 – .43
Hard ends, ¾ blood white	.30 – .32
Hard ends, fine colored	.18 – .20
Hard ends, medium colored	.13 – .15
Card, fine white	.21 – .23
Burr, fine carbonized	.23 – .25

OLD WOOLEN RAGS (GRADED FOR MFRS.)

Merinos, coarse light	$0.05 –0.05½
Merinos, fine dark	.03½– .04
Merinos, fine light	.10 – .11
Serges, blue	.05½– .06
Serges, black	.05½– .06
Serges, red	.08 – .09
Knit, white	.19 – .20
Knit, red	.10 – .11
Knit, light hoods	.10 – .11
Worsted, light	.05 – .05½
Worsted, blue	.05½– .06
Worsted, black	.06 – .06½

Silk Yarns

THROWN SILK (60 day basis)

	Nominal
Japan organzine, 2 thd. spec. gd. XX sk 85%.	$3.70
Japan organzine 2 thd. grand sk. 83%	3.50
Japan organzine, 2 thd. sp. crack. sk. 81%	3.40
Japan crepe, 3 thd. gd. XX bob. 83%	3.50
Japan crepe, 3 thd. sp. crack. bob. 81%	3.40
Japan grenadine, 4 thd. sp. grand singles, 87%	4.70
Japan grenadine, 3 thd. 90%	5.50
Canton crepe, 3 and 4 thd. 14/16 on bobbins	2.65
Hosiery tram, 3 thd. Japan 90%	4.35
Hosiery tram, 5 thd. Japan, 85%	3.40
Hosiery tram, crack XX 78%	3.10

SPUN SILK YARNS (Terms: net 30)

40/2	$3.10	60/2	$3.45
54/2	3.30	62/1	2.35

Raw Silk

(60 Day Terms. Spot Goods)

	13/15 White	20/22 White	20/22 Yellow
Super Grand, 87%	$3.10	$2.45	$2.45
Special Grand, 85%	2.85	2.40	2.40
Grand XX, 83%	2.70	2.35	2.35
Special Crack, 81%	2.60	2.30	2.30
Crack XX, 78%	2.50	2.25	2.20
Extra Extra, 73%	2.45	....	....
Best Extra, 68%	2.40	....	....

Canton filature, new style, 14/16	$1.95
Canton filature, new style, 20/22	1.85
Tussah filature, 8 cocoon	1.10

NATIONAL RAW SILK EXCHANGE

	Close Nov. 18	For the Week High	For the Week Low	Close Nov. 23	Net Ch'ge
November	2.25	2.25	2.22	2.26	+.01
December	2.25	2.24	2.23	2.24	—.01
January	2.25	2.26	2.25	2.26	+.01
February	2.25	2.26	2.25	2.26	+.01
March	2.25	2.26	2.23	2.26	+.01
April	2.25	2.26	2.23	2.26	+.01
May	2.25	2.26	2.23	2.26	+.01
June	2.25	2.26	2.23	2.25	.....

Total number of bales, 3,290. Total approximate value, $1,050,168. Trading unit crack XX 13/15 white 78%.

Domestic Rayon

VISCOSE PROCESS

Denier	Filament	First	Second
30	8	$2.25	...
50	12-18	1.35	$1.25
75	18-30	1.20	1.10
100	18-40	1.00	.90
125	36-50	.90	.80
150	30	.72	.70
150	24-44	.75	.72
150	60	.85	.82
150	75-90	.85	.82
170	24-27	.75	.72
170	60	.85	.82
200	30-42	.75	.72
300	42-62	.63	.60
450	42-72	.63	.60
600	72-96	.63	.60
900	100-144	.63	.60

NITRO-CELLULOSE PROCESS

Denier	First Qual.	Second Qual.	Denier	First Qual.	Second Qual.
75	$1.35	$1.25	150	$0.75	$0.72
100	1.05	.95	175	.75	.72
125	.95	85			

CUPRAMMONIUM PROCESS

Denier	Filament	Price	Denier	Filament	Price
15	24	$3.10	75	60	$1.30
25	24	2.85	80	60	1.30
30	24	2.60	100	75	1.10
40	30	1.70	120	90	1.00
52	30	1.50	150	112	.90
65	45	1.40	180	135	.87

ACETATE PROCESS

Denier	Price	Denier	Price
45	$1.60	125	$1.10
60	1.50	150	1.00
75	1.40	300	1.00
100	1.30		

Rayon Waste

Open bleached waste	$0.13–$0.14
Open unbleached waste	.10½
Bleached thread waste (mfg.)	.09
Bleached thread waste (misc.)	.06– .07
Colored thread waste	.03– .04
Cclored clips	.03– .04

CONVERTED RAYON WASTE

Bleached tops	$0.30–0.32½
Unbleached tops	.27– .28
Bleached noils	.11
Unbleached noils	.09½
Bleached garnetts	.12
Unbleached garnetts	.13
Colored garnetts	.10– .11

Silk Waste

Kibizzo Kakai Grand XX	$0.50
Kibizzo Kakai Triple Extra	.44
Frison Grand Double	.49
Pierced Cocoons	.50

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